FRIDAY, MARCH 1, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON TWO CASES ILLUSTRATING THE POINTS OF DIFFERENCE BETWEEN ACUTE PHTHISIS AND ACUTE TUBERCULOSIS.

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THE two cases which have suggested this lecture were under my care in the men's medical ward of the Pennsylvania Hospital last year. They both ran an acute course and presented many points of similarity with each other; but there were also points in which they were unlike, and these enabled me to recognize in one instance the presence of acute phthisis, and in the other, of acute tuberculosis. A post-mortem examination in each case fully confirmed the diagnosis. There are many able physicians who refuse to admit the existence of any material difference between these two diseases; but surely to separate two conditions so readily distinguished during life, and characterized after death by such different lesions, ought not to be looked upon as an over-refinement in diagnosis.

Acute phthisis I believe to depend upon a rapid degeneration of the products of a low form of inflammation of the lungs. The origin of acute tuberculosis is not quite so well understood.

The cases are reported briefly in abstract, in order that the diagnostic symptoms in each may be prominently brought out.

Case I.—D. McG., æt. 18, born in Philadelphia, was admitted into the medical wards of the Pennsylvania Hospital on the 13th of March, 1871. His prominent symptoms at that time were emaciation, fever, subsultus tendinum, carphologia, muttering delirium during the daytime, occasionally violent delirium at night, and dry and smooth tongue. There were no tympany, no diarrhœa, and no rose-colored spots on the abdomen. It was not until the 18th that I learned that the patient had no hereditary tendency to phthisis, that his illness began as bronchitis about five weeks before he came under my care, but that it was not until March 4 that he had been obliged to give up work and go to bed. Upon examining his chest I found that there was dulness posteriorly over both sides, but most marked over the left side, where there was also bronchial respiration on a level with the spine of the scapula. On the 20th he was free from delirium, and able to corroborate the history just given. At this time the abdomen was noted as being scaphoid in shape, and covered with sudamina. The tongue was clean and moist, but fissured and red. There was slight diarrhœa. The physical signs continued as before. On the 23d there was an improvement in all the symptoms; no elastic tissue could be detected in the sputa.

On the 24th the patient was not quite so well. A careful physical examination of the chest showed that there was dulness over the whole of the left side of the chest posteriorly, and in a less degree in front down to the third rib, and that bronchial respiration and moist crackling were heard in the superior scapular and the infra-clavicular regions. The patient suffered from profuse sweats. The symptoms increased in severity, the physical signs indicating extensive destruction of the left lung and commencing disease at the apex of the right lung, until his death, which occurred on the 14th of April.

The autopsy showed that the physical signs had been correctly interpreted; caseous degeneration and excavations being found in both lungs.

The following is the record made of the pulse, respiration, and temperature during a portion of the time he was under treatment:

	A.M.			P.M.		
	Pulse.	Resp.	Temp.	Pulse.	Resp.	Temp.
March 13.....				126	36	104
" 14.....	106	28	100½	118	38	104
" 15.....	118	28	100	112	34	102
" 16.....	104	38	100	112	34	102½
" 17.....	104	28	99	116	40	102
" 18.....	112	38	101	118	44	102
" 19.....				120	44	102
" 20.....	126	46	101	120	40	102½
" 30.....				130	58	103
" 31.....	120	40	101	136	36	101
April 1.....	120	30	99	134	26	102
" 2.....				135	40	102
" 3.....	120	40	100	130	44	101

Case II.—J. B., æt. 25, single, born in Ireland, puddler, was admitted into the medical wards of the Pennsylvania Hospital April 13, 1871.

His mother died of typhus fever, aged 30 years. His father is still living, in good health. No history of phthisis in any branch of his family could be discovered. He stated that his health had always been perfectly good up to the beginning of March, 1871, when through exposure incident to his occupation he caught what he described as a severe cold. This was accompanied by sharp pain in his chest, much shortness of breath, and fever, but by little cough or expectoration. From this condition he recovered sufficiently to resume his former occupation. Three weeks later, while still suffering slightly from this attack, his cough increased in severity and frequency; his expectoration occasionally contained streaks of blood, and very rarely consisted of blood alone, but at no time was there a large amount spit up. He also stated that he had had a chancre; but there was no reason to believe that he had ever suffered from secondary syphilis. When admitted, his appetite was good, his bowels were regular, his urine was acid and had a specific gravity of 1024; it contained no albumen and no sugar. He was suffering from a slight cough and some mucous expectoration. The physical signs were as follows: some dulness on percussion over the lower part of the left lung posteriorly. The respiratory murmur on both sides was harsh and somewhat blowing; the expiratory murmur was prolonged. Sonorous and sibilant râles were heard in the interscapular region. A loud blowing systolic murmur was heard near the ensiform cartilage. On the 30th of April the physical signs were scarcely more distinctive than on admission, the dyspnœa was extreme, and there was evidence of deficient aeration of the blood in the blueness of the lips, nose, and finger-ends.

The diagnosis was acute tuberculosis of the lungs.

Appended is the record of his temperature, pulse, and respiration, as taken from the time of his admission until his death, which occurred May 10, after he had passed from under my care into that of my colleague, Professor J. A. Meigs, who permits me to make the following extract from the post-mortem book:

	A.M.			P.M.		
	Pulse.	Resp.	Temp.	Pulse.	Resp.	Temp.
April 17.....	92	24	98	104	30	102½
" 18.....	104	24	100	98	26	98
" 19.....	96	24	100	90	24	99
" 20.....	104	26	98½	92	24	101
" 21.....	102	28	101	96	26	99
" 22.....	106	28	101	97	24	98
" 23.....	104	26	100			
" 24.....	110	30	102	100	20	98
" 25.....	110	30	101	90	26	98
" 26.....	104	30	102	94	30	100
" 30.....	98	26	99	114	32	103
May 1.....	104	32	100	110	34	101½
" 2.....	112	30	99	106	28	100
" 3.....	104	30	100	104	30	100
" 4.....				106	30	100

"Autopsy twelve hours after death. Rigor mortis well established. Emaciation not marked. *Thorax.*—Abundant pleuritic effusion in right cavity, also a few recent adhesions; right pulmonary pleura thickened. Left pleural surfaces

tightly adherent throughout a considerable portion of their extent, mostly at apex and posteriorly. Thick false membrane over the remainder of the pulmonary pleura. Sac contained serum, mingled with blood and pus.

"The whole of both lungs studded with miliary tubercles; abundant purulent exudation escaped on section.

"No cavities were discovered.

"*Heart.*—Right auricle dilated; bicuspid valve insufficient. Walls of left heart increased in thickness.

"*Liver* congested.

"*Spleen* enlarged and friable.

"Glands in the anterior mediastinum enlarged and indurated; no cheesy appearance."

There can be no doubt, both from a consideration of the post-mortem appearance and of the physical signs presented by the patient when I last examined him, that the right-sided pleurisy was set up after he passed from under my care. The pleurisy on the left side, on the contrary, had doubtless been the cause of his first illness, and possibly indirectly of the fatal one; for the pus in the pleural sac was evidently old and thickened, and the serum and blood with which it was mingled had in all probability been extravasated only a short time before death.

As I have said, the cases resemble each other in some points and differ in others. Let us compare them. They both ran an acute course, each coming under my care soon after the commencement of the morbid process, and remaining in the wards of the Pennsylvania Hospital about a month, when death took place. Both patients presented some of the general symptoms of disease of the lungs; in both the respiration was frequent, the temperature elevated, and the pulse accelerated; both had had an illness prior to that for which they sought admission to the hospital. But here the resemblance ceases. In the first case, the symptoms at first suggested to all who saw the patient the impression that he was suffering from typhoid fever, but upon closer examination many of the characteristic symptoms of that disease were found to be absent. The history indicated bronchitis, or possibly catarrhal pneumonia, as the starting-point of the disease. Very soon after his admission, evidences of consolidation of parts of the lungs were detected by the physical methods of diagnosis, and about ten days later crackling râles could be heard in positions where bronchial respiration and dulness had been discovered. But during the whole of this patient's illness there was never more interference with the respiration than could be satisfactorily accounted for by the physical signs. Moreover, during the last three weeks of his life all the general symptoms could be referred to the disease of the lungs which was known to exist. The temperature-record shows that there were marked evening exacerbations, the thermometer frequently recording a temperature in the evening three degrees higher than in the morning. This is, of course, always the case in any disease in which hectic occurs. The sweating was also a marked feature of the case, and was quite as profuse as we generally see it in cases of chronic phthisis. The sputa, too, a short time after admission, were of the character usually found in cases in which rapid destruction of the lung is taking place.

In the second case, the pleurisy which had occurred a few weeks before the patient's admission to the hospital had left traces which were distinctly recognized when he first came under my care. In this case there were symptoms which the physical signs did not explain; for these, it will be remembered, were at no time, when taken by themselves, indicative of serious disease of the lungs. Thus, the dyspnœa was extreme, there was cyanosis of the finger-ends and of the lips, while upon percussion the dulness due to the previous pleurisy could only be detected, and auscultation revealed the presence merely of harsh respiration, sonorous and sibilant râles, and some prolongation of the expiratory murmur. Cough was a constant symptom, but it was dry and hacking, or was accompanied by the expectoration of a small quantity of mucus, which was sometimes, but not often, streaked with blood. Sweating very rarely occurred.

The temperature noted in this case was high, but not so high as the preceding, and the diurnal range was also marked,—much more marked than is usual in cases of acute tuberculosis. But, whereas in the former case the exacerbation occurred in the evening, in this case it occurred in the morning; and you will find that this sometimes happens when tuberculosis has supervened upon phthisis, as well as when it is, as in this case, an original affection, or, to speak more correctly, has not been preceded by any disease of the lungs.

The existence of a systolic murmur at the ensiform cartilage, together with the increased area of percussion-dulness in the region of the right ventricle, indicated that the right ventricle was dilated,—a condition which it seems to me must almost of necessity occur in consequence of the stasis of blood which results from the interference with the circulation which a large number of miliary tubercles in the lungs must exert. The blueness of the lips and finger-ends undoubtedly arose from this venous congestion; and it was difficult to explain this in any other way, since there was no history of previous disease of the heart.

It was impossible to convince all who saw the patient with me that he was really the subject of so serious a disease as acute tuberculosis. There was in this case no marked prostration, sweating, or profuse expectoration, as in the other case, which, taken together with the absence of the physical signs of disease of the lungs, seemed to the minds of some to render untenable the diagnosis I had made.

I have on a former occasion endeavored to explain to you in what way phthisis is produced, and I intend in this lecture to attempt to give you some idea of the pathology of tuberculosis. Niemeyer, in his "Clinical Lectures on Pulmonary Phthisis," says that "tuberculosis, in most cases, is a secondary disease, arising in a manner not known to us through the influence of caseous morbid products on the organism."* These caseous morbid products are more usually found in the lung, but in some cases of tuberculosis, as in the one under consideration, we have to look for them elsewhere. In such cases we shall find the glands diseased, or perhaps an inflammatory exudation on the pleura, the peritoneum, or elsewhere, presenting evidence of caseous degeneration. Otitis, caries of the bones, and other affections accompanied by much suppuration are said in some instances to have given rise to it.

It is difficult to understand in what way these caseous products within the body excite the deposition of miliary tubercles in the various organs of the body. Tuberculosis has been artificially produced in the body of the lower animals by the inoculation of various substances, which, however, have always this in common,—that they contain corpuscular elements; and, provided these be not destroyed, the substance to be inoculated may be acted upon by various chemical agents without impairing its power to produce the disease. If tuberculosis may be caused by the introduction of corpuscular elements from without, there can be no reasonable objection to the acceptance of the hypothesis that this *infection* or inoculation may sometimes be due to the absorption of corpuscular elements contained within the body, it matters not in what pathological process they may have originated. These, when absorbed, act as foreign bodies, and cause within the blood-vessels a derangement of the circulation, which may in some

* Parke's Translation.

instances amount to partial stasis. As a consequence of this, there is an extravasation of a number of the white corpuscles of the blood, which generally carry with them these foreign bodies, and, collecting together in a mass, form the basis of a tubercle, which is completed by the growth of a capsule of connective tissue around it.

We learn from the record of the post-mortem examination in J. B.'s case that the left pleural cavity contained thickened and caseous exudation, and I think we must trace the occurrence of acute tuberculosis to absorption of some of the corpuscular elements it contained. It is difficult to understand why tuberculosis is set up in only a small proportion of the cases in which the predisposing cause is present. Perhaps many phthisical patients escape tuberculosis in consequence of the protection afforded against absorption by the increased growth of connective tissue, which often forms a capsule around the caseous matter in the lungs. This view is sustained by the fact that, as was known to Laennec, a deposition of miliary tubercles often occurs a short time before death, when by reason of the softening and destruction of the lung, which is very apt to occur in the last stages of the disease, the protecting barrier may be supposed to be broken down. The attempts to produce tuberculosis in the lower animals are not uniformly successful, and it is therefore not unreasonable to suppose that the cases in which everything seems to be favorable to it, and which yet escape the infection, do so in consequence of the absence of an unknown but important factor.

ORIGINAL COMMUNICATIONS.

FIRST ANNUAL REPORT OF THE DISPENSARY FOR SKIN DISEASES, PHILADELPHIA.

AN ANALYSIS OF THE DISEASES TREATED.

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THE "Dispensary for Skin Diseases" was incorporated as a charity for the gratuitous medical relief of the poor affected with diseases of the skin, and also for the promotion of the science of medicine with reference to the treatment of these diseases. It was opened to the public upon the 7th of January, 1871. During the year which has just terminated, four hundred and twenty-five cases were admitted and treated, a few of which it is my purpose in the present communication to refer to. The whole number of distinct diseases observed and included in the appended table was thirty-nine, which occurred in the following frequency:

Eczema	185	Lupus erythematosus	2
Syphilodermata	46	Chloasma	2
Acne	28	Elephantiasis Arabum	2
Seborrhœa	27	Alopecia areata	2
Psoriasis	20	Comedones	2
Pruritus cutaneus	14	Herpes iris	2
Tinea versicolor	11	Sycosis non-parasitica	2
Urticaria	10	Dermatitis traumatica	2
Phtheiriasis	9	Varix	2
Scabies	7	Sebaceous tumors	2
Ichthyosis	5	Erysipelas	1
Epithelioma	5	Carcinoma	1
Lichen pilaris	5	Herpes zoster	1
Erythema	4	Callositas	1
Scrofuloderma	4	Condylomata	1
Ulcera	4	Onychia	1
Lupus vulgaris	3	Irregular vaccinia	1
Furuncle	3	Milium	1
Rosacea	3		
Tinea tonsurans	2	Total	425
Tinea circinata	2		

Before referring to particular affections, it will not be out of place to make a few remarks regarding them as a whole. The cases were essentially of a chronic character, many of them indeed of years' standing, while comparatively few were seen as acute diseases. For instance, of the large number of eczemas, the vast majority were cases of severity and of long duration, applying at the dispensary merely as a last resort.

Unfortunately, this experience with chronic cases falls to the lot of all newly-established institutions, and serves perhaps as a test of their worth, undesirable as it may be to the physician. The relative frequency of diseases, as exhibited in the above table, does not give a correct idea of their actual occurrence in a community; for it must be remembered that only the severer and more disfiguring diseases, together with those which incapacitate for work, apply at such institutions. Many of the disorders of which there are but one or two examples recorded are known to be of common event, yet not incommoding the person to any extent, or, running an acute benign course, they escape observation. Therefore it is only by viewing statistics with very large figures, gathered from all sources, that a true approximation of the relative frequency of skin diseases is to be obtained.

It will be noticed that a very large proportion of the cases are included under the name of eczema. With modern nomenclature this name is made to embrace a number of appearances due to the same pathological cause, which in former times were each honored with a name and a multitude of synonyms. Hence, in the table will perhaps be missed a number of old familiar words, such as lichen simplex, impetigo, etc. etc. These processes are all to be found under the head of eczema, where they properly belong. By this arrangement, based upon pathological research, dermatology is rid of many superfluous terms, and our nomenclature greatly simplified. The varieties of eczema are considered under five divisions.

Of eczema vesiculosum, the typical variety of this disease, there were only twenty-five examples,—a remarkably small proportion, considering the whole number of eczemas. This is accounted for by the fact that cases rarely applied for advice in the early stage of the disease, the patients allowing the affection to assume the character of an eczema rubrum before coming under notice.

By the term eczema rubrum or madidans, I mean those cases of the disease characterized by a red, moist, excoriated surface, giving forth a viscid exudation which has a tendency to dry and form crusts. This condition is often caused by the tearing open and scratching of a previously typical vesicular eruption; also by the application of irritants. Of this variety, the one most commonly encountered in dispensary and hospital practice, fifty-two cases presented themselves. Many of these were of five, ten, and twenty years' standing, and seemed to resist everything but the most heroic treatment. Not a few were the well-known weeping eczemas of the legs, which are of such frequent occurrence in all communities. When at all practicable, these patients were treated with a course of sapo viridis and ungt. diachyli, according to the method first described and laid down by Hebra. The time requisite for the cure of these chronic eczemas of the leg naturally varied, according to the circumstances attending individual cases; but when the treatment was satisfactorily carried out, two months were usually found to be sufficient for a good result. Had they been provided with hospital accommodations, a shorter time doubtless would have sufficed. Of the great superiority of this plan of treatment over all other methods for cases of eczema rubrum, I would speak in the most emphatic terms. Care and attention should of course be exercised in giving the

most minute instructions to the patient in regard to the exact manner of making the applications. Without these definite directions for the employment of the soap and ointment, no success with this method need be anticipated; for the result rests much more with the *manner* of application than in the remedies themselves. But when the patient is made to comprehend the different steps of the treatment the plan is eminently successful, even in dispensary practice.

It is to Professor Hebra, of Vienna, that the profession and community at large are indebted for this valuable method of therapeutics in eczema rubrum.

Under eczema papulosum I have included all those cases which in former times were denominated lichen simplex, lichen agrius, strophulus, lichen tropicus, etc. This papular form of the disease was of common occurrence, forty-one cases having been observed. It was generally found to be associated with an impaired state of health, and occurred oftener in females than in males. It was observed to have a predilection for the arms, legs, and thighs. Internal treatment was here resorted to with marked beneficial effect.

There were twenty-seven cases of eczema squamosum, a number of which were of some duration and involved large portions of the body. Respecting the treatment, tar and its preparations were found most useful in many of these cases, the disease yielding to this remedy when other means failed. An ointment composed of pure pix liquida, adeps, and cerate, in the strength of one drachm of the tar to the ounce, answered the purpose very well. Here I would remark that, as a rule, tar is employed to greater advantage in small proportions rather than in large quantities. Many cases of eczema will do well under a mild preparation of this substance, whereas if the strength be doubled the skin will resent it. In two or three instances, however, where there was an idiosyncrasy, the tar acted as a poison to the skin, and its use had to be discontinued at once.

There were but twenty cases of eczema impetiginosum. This is the variety so commonly found upon children, attacking particularly the face and scalp. It shows itself in the form of pustules of various size, generally isolated, which run their course rapidly, desiccate, and leave large greenish-yellow crusts. It is the pustular exhibition of the disease.

There are still nineteen cases of eczema to be accounted for; these I have grouped under the title of eczema artificialis, the result of external irritation. Quite a number of them presented the appearances known by the name of eczema fissum or rimosum, consisting of fissures or rhagades, occurring particularly about the hands, fingers, and joints, accompanied by other symptoms due to the same mechanical irritation. This was observed in those whose occupations compelled them to work with irritants, as, for instance, type-setters, washerwomen, grocers, fishermen, etc. Several patients poisoned by aniline applied for advice; while two or three were the subjects of the familiar rhus poisoning. Lastly, more than one example of artificial eczema came under notice produced by the indiscriminate application of sulphur and its compounds, white precipitate ointment, sapo viridis, mercurial ointment, croton oil, and the many quack preparations which too often monopolize the apothecary-shops; all of which are supposed to possess virtues for the cure alike of eczema, pruritus, and acne!

The extent to which these secret preparations are used in our city is incredible, and almost beyond calculation. Many were the instances where patients sought the dispensary penniless and in a deplorable condition, having squandered their entire means upon these worthless nostrums.

The proportion of the syphilodermata, compared with the sum-total of diseases recorded, is small; and here it must be stated that this number excludes all cases of primary accident, these not being admitted to the institution. Most of the cases were those whose eruptions belonged to the late stages of the disease, including tubercles, ulcerations, and gummata.

It was rare to find patients conscious of the fact that they were the subjects of the disease in question. Many of the cases were middle-aged women, married and with families, who had had the disease for some time, but were entirely ignorant of its cause or nature. Of hereditary syphilis there were four examples. Two were girls, nine and fifteen years of age, both of whose parents were known to be laboring under syphilis. The mother of the younger of these patients was also under treatment for a tubercular eruption upon the forehead. The older girl was suffering with extensive ulceration of the end of the nose, and other symptoms of a grave character, which yielded with remarkable rapidity to full doses of iodide of potassium. One girl presented a striking example of the "notched central incisor teeth."

The number of acne patients who applied for advice and relief is not so great as one would anticipate, considering the frequency with which this trouble shows itself in every community. Only twenty-nine cases presented themselves, and the majority of these were of a mild type. Several, however, were of severe intensity, and demanded both local and internal treatment. The case of a rag-picker, forty-five years of age and in poor health, who came to the clinic with a severe acne pustulosa of the face which he had had for several years, illustrates well the necessity for both plans of treatment in certain instances. This man was ordered cod-liver oil, iron, and bark internally, while a dressing of diachylon ointment, together with the use of castile soap, constituted the external treatment. He recovered rapidly, and was discharged within two months from the time of his admission. Where the complaint was evidently dependent upon irregularity of habit, constipation, feeble digestion, and similar disorders, most gratifying results were obtained from the employment of aperient tonic mixtures. In such cases iron, magnesia, gentian, quassia, and the like remedies, afford us most excellent means for combating this annoying disorder of the sebaceous glands. In addition, such local applications, whether soothing or stimulating, are to be used as appear to be indicated in the individual case; for here no one prescription can be offered, each case demanding its own remedies and mode of treatment. With attention to the form of acne which each case presented, and bearing in mind the above remarks as an outline for treatment, the affection was not found to be the chronic and unsatisfactory one so often alluded to.

By the name seborrhœa is meant that affection which consists of an excessive secretion of the sebaceous glands, which, with the impregnated fatty epidermic scales, forms either in masses or as a greasy coating upon the surface. It may attack any portion or the whole of the body, but is generally met with as a local affection. Its common seat is the scalp, and when occurring here it constitutes the trouble known as "pityriasis of the head," or popularly as "dandruff;" but the better name is seborrhœa capitis. There were twenty-one cases of this disease recorded as occurring upon the scalp, while but six were observed upon the face and body. The affection is one which may show itself at all periods of life, though it is more frequently met with in the young and the old. In the majority of the cases observed at the dispensary, the disorder was found to be connected either with anæmia or chlorosis,—a fact in regard to its etiology which has been dwelt upon at length by other observers.

Seborrhœa if left to itself may continue for years, and in such cases is well known to be a most productive

cause of premature baldness. The treatment found to be most effectual, and generally employed, was a combination of the internal and external. The preparations of iron, together with good food, exercise, and fresh air, were prescribed, with excellent result. Simultaneous attention, however, to the local treatment was quite as important as the use of internal remedies; for in this condition of the skin the parts need a certain amount of stimulation in order to bring about a healthy action. To accomplish this end, the use of the spiritus saponis kalinus (a solution of sapo viridis in alcohol), as recommended by Prof. Hebra, followed by the application of a stimulating oil, was ordered. The disease proved readily amenable to this general plan of treatment.

Of psoriasis, twenty examples applied for relief. Many of them were of long standing, and of the obstinate nature so usual with this singular and troublesome affection. In only two cases were the subjects in ill condition; these were young girls of eighteen, whose health had been broken by scarlatina in childhood, and who had since been affected with an extensive and diffuse psoriasis. One of these has recently had variola, since which time her psoriasis has entirely left her. With the exception of these cases, the other patients presented comparatively mild grades of the affection, and were greatly benefited by external treatment. Internal remedies were resorted to, but with indefinite results.

For years past the word pruritus has had such a vague meaning, and has been employed to express so many conditions, that when used, even at the present day, it becomes necessary to define one's interpretation of the term. By pruritus is meant an itching sensation in the skin, which may be localized or universal, attended by no visible alteration in the skin itself, except that produced by scratching. The causes of this trouble are various, and generally remote from the seat of the annoyance. It is *never* due to the presence of pediculi or parasites of any kind. Of this affection there were fourteen examples, several of which were of long standing and severity. Attention to the functions of the various organs, which were often found to be deranged, together with the use of baths, constituted the general plan of treatment. Of true prurigo no examples came under notice.

The affections due to vegetable growths upon the skin were of infrequent occurrence, compared with the statistics of similar institutions in other cities. Of tinea versicolor, however, there were eleven examples, several of them of twenty years' duration. But of tinea tonsurans, the common ringworm of the scalp, due to the presence and growth of the trichophyton fungus, there were only two cases. There were likewise only two cases of tinea circinata, the ringworm of the body not involving the hairs, but produced by the same trichophyton as the tonsurans. These numbers are strikingly small, and of course give no conception of the relative frequency with which these troubles occur. The tinea versicolor cases were remarkable for the amount of surface involved with the parasite; in the course of a few weeks, however, they yielded readily to appropriate treatment. The fungus is one which is easily reached, and has but a slight hold upon the body if the proper remedies are employed. A systematic course with sapo viridis constituted the usual plan of treatment. The affection should not be confounded with chloasma, a pigmentary deposit, which it often resembles; nor should vitiligo be mistaken for tinea versicolor,—a disease which in some respects is very similar in appearance.

Urticaria.—Ten instances of this odd affection came under notice. The variety appearing in the form of round, solid elevations or papules—urticaria papulosa—occurred most frequently, and was found in the majority of cases to be intimately connected with disarrangement of the alimentary canal. Treatment directed against the cause, in such instances, proved the correctness of the view entertained. Several cases of chronic and universal urticaria which had persisted for years were likewise discovered to be entirely dependent upon disorder of the digestive tract, though in no proportion to the appearances of the eruption; these also yielded to appropriate remedies. Lotions composed of alcohol and camphor were found to be of service in allaying the intense itching during an outbreak.

Phtheiriasis, under which term I include all cases of lousiness, together with the symptoms and appearances produced by the presence of the pediculus, was of exceedingly rare occurrence. In New York, Boston, and other large cities, this trouble is much more frequently encountered than with us. For cases of pediculi capitis, petroleum was used as a parasiticide, and with satisfactory results. It is a reliable remedy for such purposes, and one which can be employed with safety. No danger need be apprehended from its use upon the scalp. An ointment of adeps and staphisagria was found to answer the purpose in pediculi pubis. The number of scabies cases is remarkably small, and when compared with the statistics of institutions in other cities, it will be seen that Philadelphia is comparatively free from this unpleasant parasite. In Paris, scabies bears about the same relation in frequency of occurrence that eczema does with us. About half of the diseases of the skin in that city are due to the acarus scabiei. It possesses more scabies than any other city in the world.

Five examples of ichthyosis were observed. All of them were of a mild type, their condition doubtless being much ameliorated by attention to bathing and inunction. In this connection it is interesting to remark that the patients who came under observation at the dispensary, taking them as a whole, were, though poor, surprisingly cleanly in their persons. This fact at once accounts for the infrequency of such affections as the tineæ, scabies, phtheiriasis, etc., which are propagated by contagion and inattention to cleanliness. The squalor and absolute poverty so common in London, Paris, and other large cities of Europe, occur only exceptionally in our city, where water and soap are the poor man's luxury. In connection with several of the ichthyotic patients it was noted that eczema was present; and it was indeed for this latter trouble that these cases sought advice.

The term lupus vulgaris is employed to denote a definite disease, which runs a slow course and possesses a characteristic clinical history. It consists of a cellular infiltration of the skin, tending to slow ulceration and destruction of the parts invaded, and accompanied by extensive cicatrization. In no instance is the cause syphilis. Syphilitic ulcerations, which at times bear a resemblance to certain forms of lupus, and which have by some unfortunately been termed syphilitic lupus, are considered under a different head. The view adopted maintains that there is no direct relation between syphilis and true lupus, the two diseases being distinct. Three cases were observed; two of them—severe cases, which were under notice for some months—recovered under the employment of internal remedies alone, the treatment consisting of iron, cod-liver oil, and iodide of potassium. Two examples of lupus erythematosus, or seborrhœa congestiva, which perhaps is the better name, came under treatment. One case was that of a girl of nineteen, who, with the exception of a beginning lupus erythematosus upon her nose, possessed a remarkably fine complexion. The disease was of six months' duration, and well marked. She was otherwise in excellent health, and had no symptoms of scrofula. Applications of the spiritus saponis kalinus, followed by a mild mercurial ointment, were used with good effect, the disease yielding slowly but perceptibly to these remedies. When last seen, she had almost recovered.

By reference to the table it will be seen that numerous other diseases were encountered, but mostly as single instances. Want of space forbids entering into further detail concerning these cases, several of which were of interest and possessed points worthy of note.

ON VIRGIN VACCINE LYMPH, AND LYMPH OF THE EARLY REMOVES, AS COMPARED WITH ORDINARY HUMANIZED VIRUS.

AN ANALYSIS OF SIXTY CASES.

Read before the Philadelphia County Medical Society, January 24, 1872.

BY BENJAMIN LEE, M.D.

IT is not my purpose in the following brief notes to enter into any extended discussion or historical review of the subject of vaccination, or to present the views of other observers, but simply to offer the facts in regard to a limited number of cases in which I have made use of the virgin lymph, or lymph of the early removes, and, by a careful analysis of these, to deduce certain conclusions which have impressed themselves strongly on my own mind in regard to the comparative merits of juvencal and humanized vaccine, and which may, I venture to hope, prove of practical use in determining under what circumstances either should have the preference. The number of observations which I have to offer is, as I have said, limited. They owe their significance to the conditions under which they were made.

At the outbreak of the present epidemic—for such, in opposition to the direct assertions of the sapient editors of our daily journals, I venture to pronounce the existing prevalence of variola in our city—I found myself entirely without this most important and potent of all prophylactics. Having been for a number of years engaged in the pursuit of a special department of medical art, I had not been able to keep up that unbroken succession of healthy babies which would put me in possession of the rather questionable treasure, of which some gentlemen have here made boast, of virus of twenty years' or any number of years' descent. I was therefore compelled to beg. This I did of the nearest vaccine physician. He complained of the difficulty of obtaining matter for his own use, and of the entire absence of any provision for such an emergency as the present on the part of the city authorities; and did not commend very highly the minute scrap of crust which he was good enough to let me have. The result justified his want of enthusiasm. The three cases in which I made use of it were revaccinations, at the ages respectively of nine, eleven, and twenty-five years. In the first two a slight amount of irritation followed immediately, and disappeared in two or three days; in the third no effect whatever was produced. Disgusted with this result, and in great straits for a further supply of a more reliable article, I was relieved to learn from the Messrs. Wyeth that they had received from Germany a number of capillary tubes containing lymph from the cow. I was the readier to experiment with this article, from the fact that the father of a family in which I had recently lost a patient from a strumous affection of the spine was thoroughly convinced that this disease had been introduced into her system by vaccination, and had therefore expressed his unalterable determination that not one of his remaining children should be vaccinated. It was only on my assuring him that this virus had never run the risk of human contamination, that he gave his consent to the operation. I immediately procured a sufficient number of tubes to meet my immediate necessities, and went to work, expecting astonishing results. I was not disappointed. Of eighteen cases which I vaccinated during the next two days, not one was apparently successful. I felt that I was reduced to one of two conclusions: either that my right hand had lost its cunning, or that German bovine lymph was a fraud. At last, on the sixth day, when I was beginning to despair of ever obtaining a result, one of these first eighteen, in the arm of a fine healthy young girl from California, thirteen years of age, in whom vaccination had never before been attempted, showed signs of life. With the exception of this prolonged incubation, it proved in every respect a type-case of vaccinia. The sore, in the regularity of its march and perfection of its contour, would have delighted the eye of the great apostle of the art himself; while the general symptoms were pronounced, though neither the local nor the constitutional manifestations were exceptionally severe. I began to resume my faith in humanity in general, and bovinity in particular. On the sixth day from the commencement of the vesicle, it being then mature, I punctured it, vaccinating two persons directly from the arm and securing a considerable quantity of the lymph on quills, one of which I used in a third case on the same day. These were all revaccinations, after an interval of three years. One of them, in a child six years old, suffering from an affection of the hip-joint, who had been successfully vaccinated three years before, took perfectly, making a large sore, perfectly regular, with this singular exception: at about the eighth day its margin had nearly reached the scar of his former vaccination, when what was my surprise to see the latter become inflamed and assume every appearance of a regular sore, with a threatening of pustulation! This, however, did not ensue. In three or four days it subsided with the subsidence of the new sore, and left no increased cicatrix. The other two were adults, both of whom had decided vaccinella, with large but irregular sores. As I find that lymph-vaccination is not in favor with practitioners in this city, I may be pardoned for making a digression here to say a word in its behalf, and to describe the easiest means of taking and preserving the lymph for short periods, and of introducing it. The proper time for taking it is that of perfect maturity of the vesicle, while still white and translucent, before pus has begun to form; this will be about the sixth day from the commencement of the vesiculation, usually the eighth or ninth from the date of the operation. The point of the lancet should be carefully introduced into the side of the vesicle at different points along its outer edge, the blade being parallel to the surface of the arm. Otherwise, if the blade be held obliquely and the point directed against the surface, the dermis may be wounded, when blood will mix with the lymph and vitiate the operation. For the same reason, no pressure whatever should be made use of in order to obtain it. The elasticity of the tissues will gradually force it to exude, and it will be seen in little pellucid bead-like drops at each of the punctures. The lancet may now be charged with this, and it may be transmitted directly to other patients, or it may be collected on small pieces of quill for future use. No precaution is necessary to prevent inflammation in the punctured vesicle, if the operation has been carefully performed. The escaping lymph will soon desiccate, and the pustule run its course undisturbed. If it shows a tendency to weep, a little oxide of zinc, in powder, dusted on, will check this.

The advantages of arm-to-arm-vaccination, and, to some extent, of quill-vaccination, are, first, its great *certainty;* second, *economy of time*,—as we can make use of our fresh matter on the eighth or ninth day, while for our crust we are obliged to wait three weeks,—often longer,—a matter of the most vital importance in the presence of an epidemic, or of immediate exposure to infection; and third, *economy of material;* since we can vaccinate a dozen or twenty cases, or obtain as many quills, which will vaccinate the same number of cases,

and still have our scab unimpaired in its turn. The mode of taking the lymph on the quill is as follows: An ordinary quill-toothpick is split up into pieces an inch long and a quarter of an inch broad, pointed at one end, square at the other. The convex surface at the square end is scraped with the edge of a penknife for a space of a third of an inch, in order to afford a roughened surface which will attract and retain the lymph. This roughened portion is then gently applied in its whole extent to the exuding surface, and left to dry, which it will do in a few minutes. When dry, the lymph will give a glistening varnished appearance to the surface of the quill. These pieces of quill may be kept in small glass tubes, as these have been which I show you, or wrapped up in foil. They will retain their virtue at least as long as a scab under similar circumstances. In using them, the surface is abraded as in using the scab, and the broad end of the quill is dipped for an instant only in tepid water, and then rubbed over the denuded dermis. It is much more expeditious than the operation with the scab, saving the laborious and tedious process of grinding the crust, and is accompanied by no waste of material, as the latter invariably must be. It is also cleaner and less offensive to a fastidious patient, and I am confident, to say the very least, not a whit less efficacious. It will be observed that this method differs altogether from that known as the quill-point operation, in which the operator is directed to make a puncture with the point of his lancet through the skin, and then insert the charged point, leaving it in the wound. That operation I consider to be liable to the very grave risk of causing phlegmonous inflammation and abscess, as it is rational to suppose that either the virus or the organic matter of the quill itself, if introduced beneath the skin into the areolar tissue, may set up an independent, local, septic inflammation, entirely apart from the specific pustulation confined to the skin itself. For the same reason the spring vaccine-lancet, producing a puncture, is a dangerous instrument, unless the depth to which it can penetrate be very carefully limited. Apart from this, I believe experience decides against its efficiency.

But to return to my cases. While awaiting the maturing of this first successful vesicle, I used the German lymph in nine other cases, and tried it a second time in four of the previous cases, thus making in all twenty-seven cases and thirty-one trials. Of the four second trials,—two in unvaccinated children under three years of age, and two in vaccinated adults,—the first two were entirely null and void; the last two developed small unsatisfactory sores, of brief course. Both of these adults had had varioloid many years since. In the mean time, one of the original eighteen, a revaccinated woman about forty-five years of age, appeared with a perfect though small sore. I vaccinated her own child, who had resisted the bovine lymph, with eighth-day lymph from this sore,—the mother being an apparently healthy woman,—but without result. One of the nine new cases, a child four years old, having a good mark from her infantine vaccination, took well. The rest either made very small, imperfect sores, with no constitutional disturbance, or were entirely fruitless. The results of this experiment with virgin lymph may, therefore, be summed up as follows: Twenty-seven individuals were vaccinated; of these, six were primary vaccinations, and twenty-one revaccinations. In all, three were successful, or one in nine,—11 per cent. Of the three successful cases, one was a primary vaccination in a child thirteen years old; the other two were revaccinations. No primary vaccination in a very little child was successful, although in two such a second trial was made. It should be said, however, that of the unvaccinated children one had resisted ordinary humanized lymph nine times, and another twice.

I now proceeded at once to make use of the lymph obtained from the first successful case. With this I vaccinated twelve persons, five of whom I had already attempted with the bovine lymph. The remaining seven, three of which have already been referred to, were all revaccinations; three of the former had never taken. In not one case did this lymph fail to make a decided impression. Two unvaccinated infants, upon whom the juvencal lymph had failed to produce the slightest effect, took perfectly, but not severely; the third unvaccinated case, which had been so often tried, had a mild vaccinella. Two children, of seven and nine years, vaccinated in infancy, and unaffected by bovine lymph, had severe vaccinella. One revaccinated child, as already stated, had a perfect sore. Of the adults, two, already alluded to, had marked vaccinella; two—one a young man of nineteen, vaccinated in infancy, the second a gentleman of upwards of sixty, who had been revaccinated before—had good sores; and two others, also revaccinations for the second or third time, had moderate vaccinella. I now obtained a scab from the third successful case of kine-vaccination,—a child four years old, revaccinated,—considering that a previous vaccination would not impair the virtue of a perfectly well-marked sore. With this I vaccinated five persons, all of whom had been unaffected by the bovine lymph, and all of whom had good marks on their arms. Of these, the mother, aged thirty-eight years, took well; one girl, of seventeen, had a severe vaccinella; one, of seven, a moderate vaccinella; while two, of ten and twelve respectively, were unaffected.

Lymph from a small sore in the second successful case, a woman of about forty-eight, I used unsuccessfully in three cases.

The results, therefore, of the experiment with lymph of the *first remove* (from a primary vaccination, which is the only reliable source, according to most authorities), were as follows: Twelve individuals were attempted,—three primary vaccinations and nine revaccinations. Five were completely successful. Of these, one had resisted bovine lymph, and one both bovine and humanized, and two were revaccinations. The remaining seven all gave evidence of more or less constitutional disturbance, with irregular local manifestations, evidently modified by previous vaccination.

From one of this series I performed the following vaccinations, the virus being now *two removes* from the cow: arm-to-arm-vaccinations, four; quill-vaccinations, seven; crust-vaccinations, eight. Two of the arm-to-arm-vaccinations, in adults previously revaccinated who had resisted the lymph from the heifer, produced decided vaccinella; one, in a child ten years old, vaccinated in infancy, who had resisted bovine lymph, was ineffective; and one, a revaccination of a girl of fifteen, took perfectly. Of the quill-vaccinations, two—one primary, which had twice resisted the juvencal lymph, and one revaccination, which had once been tried with that and once with humanized virus—took perfectly. Three, which had recently been tried with partial success, failed entirely; one, a revaccination at the age of sixty, produced a decided vaccinella; and one failed to report. Of the crust-vaccinations, one, on a woman thirty years of age, inoculated with true smallpox in infancy, in Ireland, produced a sore as perfect as an infant's. Of the remaining seven, three adult revaccinations produced slight, unsatisfactory sores, without constitutional disturbance; two, which had recently had small, imperfect sores, were ineffective; and two on children, both of whom had resisted bovine lymph, and one of whom had recently had an imperfect primary sore, were ineffective. The general result of the use of the virus of the second remove is, therefore, as follows: attempts, nineteen; successes, four; partial effects, six; ineffective, eight; not reported, one.

From the primary case of this series, which was the *third remove* from the heifer, I performed the following vaccinations from arm to arm: one of a young child previously unvaccinated, who had twice resisted bovine lymph; the others, two adults, revaccinations, who had experienced attacks of varioloid and of slight vaccinella from bovine lymph. The first was completely successful; the others null. In the mean time, while awaiting the maturing of my own cases, I was obliged again to have recourse to ordinary humanized lymph, obtaining a small fragment of a crust from one of the physicians to the Pennsylvania Hospital. With this I inoculated four adults, three of them previously vaccinated and having resisted bovine lymph, the fourth having variolous scars upon the face, but unable to account for them. A deep white cicatrix on one arm, although in an unusual place, leads me to think that they were the result of smallpox-inoculation in infancy. All of these cases had vaccinella,—the latter quite severely; but, unfortunately for the reputation of the virus, one of them, although confined to her room for months previously, was seized with varioloid eight weeks after the performance of the operation, and suffered a very severe attack; though it is but just to say that none of the papules became pustular, and comparatively few even vesicular. My supply again failing, I applied to a friend in the country, who promptly sent me a crust from the arm of a "healthy mountain baby." With this I vaccinated eight persons, all of whom had taken the vaccine disease in infancy; one aged six years, one seventeen, and the rest adults. One of these had had varioloid, and had been twice vaccinated. Of these eight, one produced a true sore; two, irregular sores; and five were without result.

To sum up: The record presents the vaccinal history of sixty persons and eighty-eight trials. Virgin lymph was made use of in twenty-seven cases, thirty-one times, with three successes, three slight results, and twenty-five entire failures. Lymph of the first remove from a primary vaccination was employed in twelve cases, with five complete successes, seven decided results, and no complete failures.

Lymph of the first remove from revaccinations was inserted in seven cases, with one success, two decided results, and four complete failures.

Lymph of the second remove, either fresh, on quill, or in crust, was employed in nineteen cases, with four successes, six decided results, eight total failures, and one not heard from.

Lymph of the third remove, direct from the arm, was made use of in three cases, with one success and two failures.

Ordinary humanized virus was employed in sixteen cases, with one success, seven partial results, and eight complete failures.

Taking the cases in the aggregate, we find that the bovine lymph or virus of the early removes (from cases previously unvaccinated), not passing the third from the heifer, was entirely successful in thirteen persons out of thirty-six attempted, with eleven entire failures,—or 36 per cent. of successes, with 30 per cent. of failures; while ordinary virus was entirely successful in one person out of sixteen attempted, with eight entire failures,—or 6 per cent. of successes, with 50 per cent. of failures. It is true that this statement places the ordinary virus at a somewhat unfair disadvantage, from the fact that all the cases on which it was tried were revaccinations, while five of the successes with the other were obtained in unvaccinated persons, one of whom, however, had previously resisted the action of ordinary virus. Making the necessary allowance for these cases, we have thirty-one revaccinations in which virgin or early-remove lymph was used, with nine complete successes (29 per cent.) and ten entire failures (32 per cent.), a result which is still greatly superior to my own above-recorded experience with ordinary virus, and which I think most observers will acknowledge to be unusually favorable.

I consider that the foregoing statement of simple facts warrants the following deductions:

1. That virgin vaccine lymph direct from the heifer is not easily absorbed into the human system, and that therefore it is not advisable to attempt its general use in the face of an epidemic or the presence of direct contagion.

2. That it is less readily absorbed in the case of infants than of older children and adults.

3. That, when absorbed, it produces the vaccine disease in both its local and constitutional manifestations in its most normal and perfect type, without unusual severity or complication.

4. That virus produced by the inoculation of a single human being with virgin lymph, for the first time, is absorbed into the human system with excessive readiness, constituting the most active virus that can be procured.

5. That such virus is more likely to induce true vaccinia in persons already vaccinated than ordinary humanized virus of long descent, and that it is therefore reasonable to suppose that its prophylactic power is in all cases greater.

6. That what is true of lymph of the first remove is also measurably true of that of several subsequent removes, but to what extent these experiments do not determine.

7. That, accepting the foregoing conclusions, it is a matter of primary importance that every large centre of population should be provided with the means for frequently revivifying its supply of virus by a return to the original source.

SYMPTOMS OF POISONING PRODUCED BY THE INJECTION OF A STRONG SOLUTION OF SULPHATE OF ZINC INTO THE VAGINA.

BY A. K. MINICH, M.D.

MRS. G., aged 28 years, the mother of three children, was in the habit of using a solution of acetate of zinc by injection, for the relief of a leucorrhœa with which she was suffering.

I was summoned one morning in haste to her side, and learned that she had just injected about two drachms of sulphate of zinc in solution into her vagina. Soon afterwards she felt severe pain in the region of the groin, which was followed by sickness at the stomach, and a feeling, as she subsequently described it, "as though her blood could scarcely struggle through her veins." That which first arrested my attention upon seeing her was a deadly pallor of the skin, which was milky in its whiteness. Her features were shrunken, her eyes almost fixed and of a peculiar bright lustre, tongue partially paralyzed, pulse rapid and scarcely distinguishable, at times dicrotic. The whole surface of her body was cold, and covered with a clammy perspiration; her general appearance and condition indicating a profound constitutional depression, and, as it seemed to me, a speedy dissolution. Large quantities of milk were immediately thrown into the vagina, to wash out and neutralize any poison that might still remain; ammonia and brandy were freely administered; sinapisms were applied to her chest, and cloths wrung out of warm water to her extremities. In about half an hour she began to rally, and continued to improve until recovery was complete. The milk drawn from her breast soon after my arrival at once separated into two portions,—a lower thick mass, looking like coagulated milk, and an upper thin and watery portion. Unfortunately, the milk drawn was lost, preventing a closer examination. Her child—a suckling—was removed from the breast until the third day, when it again took it without any untoward symptoms arising.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SURGICAL SERVICE OF DR. JOHN H. BRINTON.

Abstract of a Lecture delivered January 17, 1872.

GENTLEMEN,—The first case to which I shall direct your attention this morning is that of a poor fellow who has lost portions of both of his feet from frost-bite, and whose present condition is most unfortunate. His history is as follows. In January, 1870, while travelling on foot in Western Maryland, he was exposed to great cold, and experienced a peculiar burning and throbbing sensation in the soles of both feet. That night he slept in a barn; on the following day he attempted to resume his tramp, but was able to travel but a short distance. That night he slept in the open air, and on the following day found himself unable to walk at all. It was not until the expiration of forty-eight hours more that he received any medical attention, at which time all the toes and the lower parts of both feet were found to be gangrenous. No operative interference was attempted until the month of May, when amputation was performed obliquely through the metatarsus of the right foot, and upon the left foot just in front of the lower tarsal row. The latter operation appears to have been an irregular Lisfranc, or, more properly speaking, an old-fashioned Hey's operation.

Now, if you will examine these extremities carefully, you will find that there is a marked difference in the condition of the respective stumps. The right is in a degree serviceable for locomotion; that is, with the aid of his crutches, he can put so much as remains of the sole of this foot flat upon the ground, and to a certain extent can bring the weight of his body upon it. This he cannot do with the left stump, which is tender, painful, and excoriated over the line of the cicatrix. The left heel is elevated; he cannot flex the ankle-joint; he walks with this stump in extension, its extremity resting on the ground, and the weight of the body pressing upon and irritating the tender cicatrix.

What is the explanation of the difference as to the condition of these two stumps? The answer is found, I think, in the differing anatomical relations of the parts. You will understand this fully if you will reflect for a moment upon the disposition of the muscles which pass from the leg to the foot. *Flexion* of the tarsus upon the leg is effected by the direct action of the tibialis anticus and peroneus tertius muscles, assisted perhaps by a continued contraction of the extensor longus digitorum and extensor pollicis proprius. *Extension* of the foot is produced chiefly by the powerful muscles of the calf acting through the medium of the tendo Achillis, and aided by the tibialis posticus and peroneus longus and brevis. Now, in the right foot of this patient the insertions of the tibialis anticus and peroneus tertius have not been interfered with; these muscles still retain their power to flex the foot and to exert a proper antagonism to the calf-muscles. On the patient's left foot, however, their insertions have been divided, and the foot is left at the mercy of the powerful posterior extensor group; the heel consequently goes up, and the extremity of the stump comes down. As a result we have the tender, painful stump so harassing to the patient.

Is there any remedy for this condition, short of reamputation? A partial, if not a perfect one, I think there is; and that is to be found in the free division of the tendo Achillis, with forced depression of the heel, and its retention in that position until an elongated union of the divided tendon shall have taken place. I now make the subcutaneous section with my narrow tenotome, dividing freely all the adhesions of the tissues. I then attempt to bring down the heel, and in so doing I am but partially successful, owing to the resistance of the adhesions, which rise to my finger as I continue the flexion. I cut them also, and you see now that the heel comes down, and that the sole of the foot is flat. The interspace between the divided ends of the tendon is considerably more than an inch. I shall now apply a broad strip of adhesive plaster firmly, so as to retain the heel in its new and really normal position, and shall keep the patient in bed for a few days.

I have directed your attention, gentlemen, to this case, not only that you might see what may result from frost-bite, but also more generally with reference to amputations of the anterior part of the foot. The most common of these—those in fact which may be regarded as very tempting to the surgeon, because of the high degree of skill required for their performance—are spoken of as Lisfranc's and Chopart's amputations. The former is, as you know, a disarticulation of the foot at the tarso-metatarsal articulation; the latter is through the middle of the tarsus, the calcis and astragalus forming the stump. In Chopart's amputation the tendons of the extensor muscles are divided above their insertion; there is consequently no antagonism to the posterior forces exerted through the medium of the tendo Achillis. Hence in these cases the heel is almost invariably elevated, and the sensitive cicatrix brought to the ground. In Lisfranc's amputation the internal cuneiform bone is left, and with it a portion of the insertion of the tibialis anticus muscle; but that other portion which is attached to the metatarsal bone of the great toe is severed. The peroneus tertius tendon, inserted upon the metatarsal bone of the little toe, is also cut. The same results, therefore, so markedly observable in Chopart's amputation, are often present, although perhaps in a less decided degree, in the tarso-metatarsal disarticulation. I speak in this matter quite positively, for I have had frequent opportunities of examining the stumps of such operations, and I am very certain that they are often accompanied by great inconvenience and suffering upon the part of the patient. The condition of affairs I have described is generally of slow development; it is not always present, or, at all events, does not attract attention immediately after the operation, but makes its appearance gradually. As far as my experience goes, the elevation of the heel is usually complete in from twelve to eighteen months after cicatrization, when the patient finds that the stumps are practically useless.

You will ask me, I know, whether in view of these facts I would advise the non-performance of these disarticulations. To this I would answer, Not in all cases; but in performing Lisfranc's amputation I would strongly impress upon your minds the advisability of so modifying your procedure as to preserve, if possible, the bases of the metatarsal bones of the first and fifth toes, with their insertions of the anterior flexors of the foot. If this cannot be done, then it would seem to me to be good surgery to divide the tendo Achillis, either at the time of amputation or later, as soon as any tendency to elevation of the heel may become evident. The propriety of Chopart's amputation appears to me to be very questionable; indeed, with the knowledge we now possess of the results of Syme's and Pirogoff's methods, through the ankle, I should prefer to operate by one or other of the last-named procedures.

ISCHIO-RECTAL ABSCESS—EXTENSIVE DENUDATION OF THE RECTUM.

The next case which I will bring before you is of great interest, and is one which will demand the utmost care and attention to bring to a successful issue. This is the patient's history: H. P., aged 23, was admitted into hospital about three weeks since. He had been employed in a sales-stable, and his occupation was to ride the horses for trial. Eight years ago, when employed in a glass-factory, he sat down on a hot bottle, and thus burnt and cut his buttock extensively. You see now the scars of this injury. A short time before his admission to this hospital he suffered great pain in the rectal region, and found himself unable to ride; an abscess formed and burst on the left side and below the anus. The resulting external openings I enlarged and slit up as soon as the patient came under my treatment. Very considerable discharge has taken place, but there appears to me to be a tendency of the sinuses to burrow; there certainly is an indisposition of the parts to heal. I am under the impression that very serious trouble exists around the rectum, and I propose, therefore, further investigation.

The patient's rectum has been freely emptied by an enema. He is now etherized, and I will examine carefully into his condition by means of my probe. Observe, if you please, the nature of this instrument,—an ordinary silver probe some five inches long, with a broad flat handle, and with an eye through the bulbous end. In making rectal examinations you will find great advantage in having a flat handle to the instrument;

you are enabled to direct the point whither you will, and always with absolute certainty as to its whereabouts. Sir Benjamin Brodie, in his clinical teachings, laid great stress on this matter, and I advise you always to employ probes of this construction. Now, as to the introduction of the instrument: notice that I carry its point through the external opening on the left side of the buttock, before I introduce my index-finger into the rectum. I do this in order that the probe may follow the natural course of the sinus. If I were to insert my finger into the rectum first, I should excite contraction of its sphincters and of the levator muscle, and the track of the sinus might thus be rendered more tortuous and difficult of exploration. This probe now passes freely up by the side of the bowel. Is there an internal opening to this sinus? To determine that, I now insert my index-finger, well oiled, through the anus, and search carefully. Here again it is well to remember a precept of Sir Benjamin's,—viz.: that when an internal opening exists—in other words, when the fistula is complete—this opening will most generally be found not far from the anus; in fact, in that portion of the mucous membrane included between the upper and the lower sphincter. Surgeons often err in searching for the opening too high up,—too far away from the anus. Do not commit this mistake. Remember that in most instances the internal orifice will be found in the locality I have indicated. The opening, when it exists, is usually through the centre of a small protuberant caruncle or elevation in the mucous membrane, which in most cases can be readily recognized by an experienced finger. Once detected, a little gentle manipulation with the handle of the probe will cause its point to emerge in the cavity of the gut. In the case before us I have now carefully explored the mucous membrane for some distance above the external sphincter, and I find no evidence of an internal opening; indeed, I scarcely expected, from the history of the patient, that one would exist. But I do find, however, by turning my probe from side to side, that extensive ravages have occurred in the tissues surrounding the rectum externally, for I can sweep the point of the instrument in every direction. I now withdraw my probe, and enter it through the external opening on the right side of the anus, and you see that the point of the instrument passes up as freely upon this side as it did upon the other, and that the sinuses are continuous. I think we may take it for granted that the rectum has been denuded throughout its entire circumference, and this denudation extends upwards from two and a half to three inches. I would here draw your attention to the character of the integuments under our observation. Notice the purplish shining hue; and if you could feel them, as I do now, they would give to your finger a sense of brawny boggy resistance. The whole of this tissue is worthless, and serves but to cover and conceal the extensive devastation of the structures beneath.

I have thus briefly exposed to you the present condition of the parts. Now, what has brought this about? Undoubtedly, the formation of an abscess in the fossa between the rectum and the ischium, which has gradually extended, destroying the opposing tissues, depressing the vitality of the integuments, and stripping the rectum of its external surroundings. As far as I can learn, the walls of the gut are not penetrated, its muscular and mucous coats being intact.

Such, gentlemen, I believe to be the lesion and its mode of development. The next question, and to our poor patient the most important, is, Can this condition be relieved? can the parts recover their normal healthy state? I think they can, provided a proper operative treatment be instituted. My object will be to lay open the existing sinuses, and to endeavor to obtain granulation from the very bottom of the tracts. At the same time I must bear in mind that the chain of sinuses sweeps completely around the rectum, and should I divide all of the superjacent tissues at once, disastrous consequences might ensue. In all probability the external sphincter would be cut at two points, anterior and posterior to the anus; and possibly also some portions of the levatores ani might be involved. More or less incontinence either of flatus or fæces, or of both, might result,—a condition which I have more than once seen, and one which is very distressing to the patient. This is a matter which does not always receive from surgeons the attention it deserves; and I would therefore here caution you, gentlemen, against cutting the sphincter at two points in the same operation. If you do this, the power of the muscle is lost, and, as a result, the power to control the motions. Let me warn you, therefore, never to divide with the knife the sphincter in more than one point at the same operation, nor in successive operations at short intervals of time. Indeed, I would even go further, and say that if ever a second operation for fistula be necessary on the same patient, it had best be accomplished by the seton.

In the patient upon the table I shall operate at intervals. To-day I shall lay open the sinus on the left side, slitting up, as you see me now do, all of the tissues as far forward as the middle perineal line in front of the anus. The hemorrhage is inconsiderable. Through this transverse sinus, between the right and left main tracts, I shall pass a seton. This latter, from the depth at which it is placed, will probably in sloughing out divide the anterior attachment of the external sphincter,—a circumstance which I regret, but cannot prevent. By now introducing my finger through the cuts I have made, I find that I can carry it up, sweeping the circumference of the rectum to a very considerable depth, thus verifying the information already furnished by my probe.

The after-treatment of the case will be simple, and will consist in light packing of the wound, perfect cleanliness, two or three days' enforced rest of the bowel, and the very best supporting and tonic regimen the house can command.

This patient will be brought before you from time to time, so that you can observe his progress and after-treatment. The operation upon the opposite side of the perineum I shall defer, in accordance with the principles I have laid down, until reparation of the tissues already divided shall have taken place. By so doing, I trust to conduct to a successful termination the treatment of this exceedingly grave affection.

TUBERCLE-CELLS IDENTICAL WITH WHITE BLOOD-CORPUSCLES.—Dr. C. F. Rodenstein, in a communication read before the Yonkers Medical Society (*New York Medical Journal*, December), maintains the identity of the white blood-corpuscles with tubercle-cells, and that tubercles are caused by an extravasation of the white corpuscles of the blood,—an opinion which was originally announced by William Addison in 1843, and more recently by Waldenburg. He says it is impossible by the microscopic appearances to distinguish separate tubercular cells, such as we see scattered over the pia mater, from white blood-corpuscles, and quotes Virchow's description of a tubercular cell as evidence in favor of this identity. The locality in which tubercles are found also favors the presumption that they are derived from the blood; for they are generally developed along the course of the vessels. He says, further, that although pus and tubercular cells are identical in healthy blood, and are transuded in inflammation, it is as improper to say that tubercles are only a collection of pus as it is to say that a leucæmic or typhous tumor, or a glioma, is a collection of pus, notwithstanding that each is made up of the round migratory cells. There is a pathological cause which in the one instance makes a white blood-corpuscle a pus-cell, and in another a tubercular cell.

PARALYSIS AS THE RESULT OF ALCOHOLIC EXCESS.—Dr. C. Handfield Jones reports, in the December number of *The Practitioner*, several cases of spinal paralysis produced by alcoholic excess. In some of the cases pains of a rheumatic character, but unaccompanied by swelling, preceded the loss of power, so as to give rise to the impression that the patients were suffering from rheumatism. In one case, in which a post-mortem examination of the spinal cord was made by Dr. Lockhart Clarke, extensive alterations were found. The prominence of the spinal symptoms in the cases reported by Dr. Jones he explains by supposing that the alcohol affected the lower spinal centres more than the cerebral. That a drug which usually acts on one locality may occasionally leave that part unaffected and concentrate its action on another is proved by the similar case of opium, which sometimes passes by the hemispheres and paralyzes the cardiac nerve-centres. Dr. Jones also refers to the fact that epileptic seizures are a frequent consequence of chronic alcoholism.

PHILADELPHIA
MEDICAL TIMES.
A SEMI-MONTHLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

PUBLISHED ON THE 1ST AND 15TH OF EACH MONTH BY
J. B. LIPPINCOTT & CO.,
715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

FRIDAY, MARCH 1, 1872.

EDITORIAL.

THE SALE OF DIPLOMAS.

THE committee appointed by the Legislature to investigate the matter of the alleged sale of collegiate degrees by the Philadelphia University of Medicine and Surgery and by the American University of Philadelphia met again in this city on Saturday, February 17, and examined several additional witnesses. The evidence went to show that degrees had been sold by the American University, and was so clear and ample that we think that the Legislature will be wholly derelict to the duty it owes the people of this State if it do not, before the close of the present session, revoke the charter of this institution, which appears to have grown very bold of late, and to have scattered its diplomas about with a degree of recklessness which is really surprising. It was proved, during the investigation, that in many cases twenty-five dollars was all that was demanded for conferring the doctorate upon any person, whether qualified or not, who desired it. The recipient of one of these diplomas testified that he had never attended a course of lectures, either at the American University or elsewhere.

It is evident that the members of the faculty of the Philadelphia University have been more wary; but we think that there will be little difficulty of convicting them of the same misdemeanor, although two of them swore that they knew nothing of the sale of diplomas. Dr. Paine, the dean of the institution, was foolish enough to attempt to carry the war into the enemy's camp, by asserting that diplomas were sold by the University of Pennsylvania. Of course this statement will be regarded, by all who are acquainted with the high character of the gentlemen who compose the medical faculty and the Board of Trustees of the oldest medical school in this country, as an impudent falsehood and slander, for which its author should be held responsible. While under oath, Dr. Paine stated that "in 1869 a gentleman had called on witness with eighty blank diplomas of the University of Pennsylvania which he wanted to dispose of, saying that money could be made out of them. This gentleman's uncle was a Professor in the University, and he (Dr. Paine) supposed the diplomas were obtained through him." Dr. Rogers, the dean of the medical faculty of the University of Pennsylvania, denied this assertion most emphatically, and called Mr. Horace W. Smith, a descendant of the Rev. William Smith, a former Provost of the University, who testified as follows:

"I had an offer to sell diplomas which had on their face an engraving of the Pennsylvania Hospital; I obtained these diplomas from Cephas D. Childs; I disposed of them to parties illustrating the city of Philadelphia, for thirty cents each; I cut off all the engraved matter by direction of Mr. Childs, the engraver; I mentioned to Mr. Paine that I had access to a number, and told him the price; he did not offer to buy, but the next day a man came to me and offered for good copies three dollars each; I did not sell them."

We have quoted the testimony given above, verbatim, from *The Philadelphia Inquirer*. We believe, however, that the diplomas which Mr. Smith had in his possession were certificates of attendance upon the course of clinical instruction of the Philadelphia Hospital before its removal to the west side of Schuylkill River, and not of the Pennsylvania Hospital, as stated in the report. As this appears to be all the authority Dr. Paine had for what he said on this point, our readers will know what importance to attach to the remainder of his testimony. We repeat that Dr. Paine will not succeed in injuring the University of Pennsylvania among its friends; but he has no doubt accomplished his object, which was to produce an impression among a portion of the community that the present investigation is instigated by jealousy.

The secular press seems to be at last aroused to the necessity of suppressing these diploma-manufactories; and it is to be hoped that it will communicate some of its zeal to our legislators at Harrisburg, for the continuance of this evil will imperil the reputation which Philadelphia justly bears as a centre of medical education.

COMPULSORY VACCINATION.

THE Board of Health of this city has presented a memorial to the Legislature of Pennsylvania, praying that authority might be granted to it to enforce vaccination. This action has of course given rise to much discussion in the daily newspapers, and some little misapprehension evidently exists as to what it is intended to accomplish by it. A correspondent of *The Press* says that two leading physicians of the city have declined to vaccinate him, and that he knows of a gentleman whose life was placed in great peril in consequence of erysipelas ensuing upon the operation. The gentleman to whom he alludes, undoubtedly, was very ill after he had been vaccinated, but, from what we have heard of the case, we are inclined to believe that his friend has made the not unusual mistake of taking a *post hoc* for a *propter hoc*. Of course, if the Legislature passes any statute making vaccination obligatory,—and we sincerely hope it will do so,—physicians will not be compelled to perform the operation in cases in which, by reason of ill health or advanced age, it might be attended with danger.

THE PHOTOGRAPHIC REVIEW OF MEDICINE AND SURGERY.

IT gives us pleasure to call the attention of our subscribers to this excellent journal, which is also published by Messrs. J. B. Lippincott & Co., and which completed its first volume last August. A number is issued bi-monthly, and contains four photographic representations of medical and surgical diseases, which upon comparison we find to be much more artistically executed than those contained in the French *Photographic Review*. The *Review* is ably edited by Drs. F. F. Maury and L. A. Duhring. The subscription-price is six dollars per year.

LEADING ARTICLES.

A SUIT FOR MALPRACTICE.

BY P. W. ELLSWORTH, M.D.

A CASE has just been tried before the Superior Court of Connecticut, of great interest both to the profession and to the public, it being the first of the kind for many years in that State.

Eight years ago—viz., in 1864—a Mr. White was thrown with great violence from a vehicle, the horses running at the time and dashing the carriage against a tree. He fell upon his feet, fracturing obliquely both bones of the left leg one and a half inches above the ankle-joint. Dr. J. C. Jackson, passing at the time, was called upon, and reduced the fracture, with the assistance of Dr. A. W. Barrows, who administered chloroform. On final recovery there was found a misshapen leg, it being bent outward at the point of injury one-fourth of an inch. After a delay of six years, suits were simultaneously commenced by Dr. Jackson for his bill and by Mr. White for malpractice; the latter laying his damages at $10,000. The doctor recovered $100 for his services, and the trial of the second suit is just finished.

The plaintiff summoned several medical gentlemen, particularly Dr. D. Smith, of Springfield, Mass., Dr. Jewett, of New Haven, and Dr. Curtiss, of Hartford. The testimony of the prosecution went to show that the fracture-box is worthless; that when it was found chloroform could not be given without danger, some other anæsthetic should have been used subsequently for the purpose of correcting the deformity; that stronger extension than had been used was demanded; that callus never bends when hardened, and that it never softens and afterwards again hardens; that the swollen and painful condition of the ankle-joint and foot did not interfere with extension, and that extension is a first-rate thing for a diseased joint; and that the side-splint at last applied was useless. The testimony of Drs. Jewett and Curtiss was, however, very guarded, and did not materially strengthen the case of the plaintiff; nor was it very adverse to the testimony for the defence.

Many of the physicians and surgeons of Hartford were called upon to rebut these views, and with them Dr. F. Bacon, Professor of Surgery in Yale College.

It was maintained—1. That the evidence was conclusive as to the primary correct setting of the bone, as both Drs. Jackson and Barrows were experienced and thoroughly competent men; while Dr. Barrows, who asserted that the fracture had been properly reduced, was a most reliable and disinterested observer.

2. That the fracture-box is in very general use, especially for bad oblique and compound fractures of the leg; is very commonly employed in hospitals, especially in Hartford, and by many surgeons in private practice; and is an instrument, if properly managed, capable of producing the best results.

3. That when Dr. Jackson proposed to rectify the limb about the tenth day, plaintiff refused to have it done, except upon terms endangering his life. Therefore defendant could not be responsible for consequences.

4. That extension was not demanded, and therefore not used, further than laying the leg over an inclined plane of pillows and the box; that the shortening, being only three-eighths of an inch, and detected by no roughness indicating overriding of the fragments, did not justify traction upon the injured foot.

5. That callus often yields if not fully consolidated, and union cannot be positively assured at a given time; and that the union might appear firm, yet yield upon too violent use of a limb even after dismissal by the surgeon; that this yielding might be gradual, and at first imperceptible to a careless observer.

6. That as chloroform had, as testified by Dr. Barrows, produced on its first administration very dangerous symptoms, the surgeons were justified in using their best judgment as to the further employment of anæsthetics.

7. That, the deviation of the natural outward bend of the lower part of the tibia being increased only one-fourth of an inch, the lameness could not be very great. This was further proved by plaintiff's having danced all night, and having a gait showing the most trifling lameness.

8. That, plaintiff having left Dr. Jackson before dismissal, defendant was not responsible.

The arguments based upon the evidence were masterly, especially those made by the defence, conducted by Wm. W. Eaton and N. Shipman. The argument of Mr. Shipman was legally elaborate, and that of Mr. Eaton most eloquent and convincing.

The charge of Judge Pardee could hardly have been improved upon, and was very gratifying to the many professional men who heard it,—being concise, exactly to the point, and eminently just. After summing up the case, the judge closed as follows:

"The law demands of every man who offers his services to the public as a physician and surgeon, that he should have that degree of learning and skill in his profession which is ordinarily possessed by those members of the same profession who are well educated in it; having reference to the state of medical and surgical skill and science at the time of the service rendered. This rule does not require that he should have the highest skill to which men of rare genius and endow-

ments attain, or an education equal to the most eminent of the profession in the country; and it will not allow any man who is uneducated and unfitted for the work to represent himself as qualified to perform surgical operations or administer medicines.

"Again, a physician or surgeon well qualified under this rule may yet expose himself to an action for damages, by reason of his neglect to bring into exercise his learning and skill in a particular case; for, when he takes professional charge of a patient, the law makes it a part of the contract that he will yield to the use and service of such patient his best knowledge, skill, and judgment in investigating the nature of the injury or disease, and the best mode of treating it, and that no injury shall come to him by reason of the carelessness or negligence of the attending physician or surgeon.

"Again, the most skilful of the profession may mistake the nature of the injury or disease, apply improper treatment and be unsuccessful in the work of restoration of a fractured limb or cure of a diseased organ, and yet not be responsible in damages; and the law does not make any physician or surgeon an insurer or guarantor of success, unless by special contract; and he is not held responsible for failure in his treatment of a particular case, unless that failure has resulted from his want of ordinary care, skill, and diligence, or from his negligence and carelessness in the management of the case; the burthen of proving all which is cast upon the person who institutes a suit for malpractice. If the patient, by his own negligence, or by his disobedience of the proper and reasonable instructions of a well-qualified physician or surgeon, contributes essentially to the failure of success in his own case, he can hold no one responsible therefor."

The case was tried before eleven jurors, by consent of the parties; ten of these were for defendant and one for plaintiff. After being sent out three times by the judge, an agreement was reached by way of compromise: the verdict being five dollars damages to plaintiff and five dollars costs,—a verdict virtually for defendant.

The writer would add that, whether the increased curvature of the limb of plaintiff did or did not result from use prior to removal of all splints, or immediately thereafter, he feels assured from many observations that there is a high probability that a very large proportion of deformities which follow fractures treated by competent men are caused by imperfect callus. Several cases are known to him where limbs left by surgeons after careful inspection have presented appearances, months after, utterly unaccountable except on this supposition. As the process of consolidation goes on slowly from a state of fluidity to that of solid bone, and as the time of cure depends not less on the constitution and quietness of the patient than on the skill of the surgeon, it is by no means surprising that the reparative process may be unexpectedly delayed, and the callus, though examined carefully, should have less earthy matter deposited in it than was supposed. In proof of this, the writer would state a case exactly in point. A very competent surgeon reduced a fractured radius and ulna a year and a half ago. The patient, finding the arm pretty strong, left the surgeon (without his consent), and went to work. When he left, the arm was as perfect as before the fracture, and eight weeks had elapsed. The patient now threatens suit, owing to a deformity. A surgeon who examined the wrist recently states that there is even now motion at the point of fracture. Unquestionably the whole trouble has resulted from bending of the softened callus. The profession is requested to examine into this condition of renewing bone, as it will put it on guard both against the danger to the patient and that of suits against its members.

CORRESPONDENCE.

London, 22d January, 1872.

To the Editor of the Philadelphia Medical Times.

Dear Sir,—Having spent the past month in London, and during that time having been quite a constant attendant upon the practice of the Royal London Ophthalmic Hospital, Moorfields, and knowing from a continued perusal of our medical journals for the past ten years that little or nothing has ever been published concerning the practice of the hospital, save in the more formal character of official Hospital Reports, I propose to give off-hand brief sketches of my impressions of the surgeons and the surgery of the "Old Moorfields," as it is familiarly and fondly called here. And it well deserves all the encomiums that may be lavished upon it. From some personal experience of the working of an ophthalmic hospital, I am able to speak with somewhat of confidence as to the justness of my observations.

The hospital in Bloomfield Street, founded in the year 1804 by John Cunningham Saunders, is in the midst of a poor, thickly-settled district of the "city," and is not easily found by a stranger. Londoners themselves do not pretend to know exactly where Moorfields is; so that it is better to ask for the hospital in Bloomfield Street. That this caution is not superfluous, the stranger who seeks it for the first time will have due reason to appreciate.

With the exception of Mr. Jonathan Hutchinson, the surgeons all live at a distance of two or three miles, in the west end of the city. Externally there is no pretence to architectural merit. The exterior is of dark brick, much stained by London smoke, presenting a sombre appearance. Its front windows look out upon the busy scene of a large metropolitan railway terminus. Internally the walls are painted of a delicate bird-egg-color (the green hue predominating), while the stair- and ward-walls have painted surbases of a dark color, running up to a sufficient height to prevent soiling by the patients.

Within a few years the hospital has been enlarged by a new wing, and every available foot of ground has been built upon; even the yard was occupied, it being floored over, and a glass roof thrown across it, to give increased facilities to the surgeons.

There are only sixty beds in the hospital; these are divided among the seven surgeons. But it is the out-practice that is so important, as it is with us at the Wills Hospital in Philadelphia. This is the great feeder to the house, and in 1870 the number of new patients attending was 18,660, with a total attendance of out-patients of 93,300. I was assured by the surgeons that three hundred a day was about the average attendance of the out-patients. The system of registration is different from ours. The name, diagnosis, and treatment are not entered in a book as with us, but the patient has what is called "a letter," on which are his name, diagnosis, and treatment. The patient keeps this, and at each visit presents it to

the surgeon, who writes in it such remarks or directions for treatment as may occur to him from time to time. Medicines and spectacles are both furnished by the house. The furnishing of spectacles, it is thought by some of the surgeons, might be done away with with advantage. Each of the surgeons attends twice a week. The hours for seeing patients are from eight to ten o'clock in the morning; but the surgeons rarely get there before nine o'clock, and they remain until about one o'clock, according to the amount of business on hand.

The following are the days of attendance and the names of the surgeons: Monday and Thursday, Mr. Streatfield, Mr. Hutchinson; Tuesday and Friday, Messrs. Bowman, Critchett, Lawson, Couper, Soelberg Wells; Wednesday and Saturday, Mr. Wordsworth, Mr. Hulke.

The out-patients begin to arrive at eight o'clock, and are gathered in a large receiving-room with divisions for each sex. From this they are drafted by the hospital-porter into a spacious prescribing-room, where the surgeons sit at high desks, each one having a sort of railed alley-way along which his particular batch of patients approaches him. A limited number only are allowed at a time, and this prevents the noise and confusion inseparable from such a mass of waiting people, especially as many young children and infants are certain to be in the assemblage. Mr. Bowman's out-patients are seen by Mr. Wells; Mr. Couper does the same for Mr. Critchett.

Eleven o'clock is the daily hour for operation. Hardly a day passes without an operation. There are no formal consultations held, but each surgeon, accompanied by the house surgeon, goes up-stairs to the operating-room and proceeds with the matter in hand. The operating-theatre is up-stairs; it is small and poorly adapted to its purpose, being very defective as to light, especially important in this country of mist and fog.

The operating-table is placed with its foot opposite to a large window, so as to let the light fall upon the patient's face. On each side are a series of steps or platforms; each is separated from the other by a light iron railing; and in these tiers the students or lookers-on stand. There are no seats, as there are with us. This appeared to me to be an improvement, as it brings the students nearer to the operating-table, and the regular graduated rise of the platforms enables one row to look over the heads of the other. Anæsthetics may be said to be always used here; bichloride of methylene is the favorite, and, from what I have seen of its use in this and in other London hospitals, I have been much pleased with it. About a drachm is poured upon a cup-shaped inhaler (made of pasteboard and flannel). It appears as effectual and rapid in its effects as chloroform, and less apt to produce vomiting. With the exception of Messrs. Bowman and Critchett, the majority of the surgeons hold appointments also in general hospitals, one holding no less than four other appointments. It seems wonderful how, with such other engagements, they can devote so much time to this special work.

I saw but little that was novel to me. The out-practice was composed of an endless repetition of such cases as fill the out-patients' rooms of ophthalmic hospitals in America, and the remedies were such as we use at home,—calomel insufflation, nitrate-of-silver drops, tonics, and attention to the general health, being the staple remedies. Specific disease, however, appeared to be more rife; in fact, London is not far behind Vienna in this respect. The two greatest novelties that came under my notice were Mr. Critchett's new mode of operating for cataract-extraction, and Mr. Bowman's method of trephining the cornea for creeping intractable ulcer (ulcus serpens of Sämisch) of the cornea. Mr. Critchett's method is with a narrow Graefe's knife to make an upper section of the cornea, midway between the upper border of the pupil and the superior corneo-sclerotic junction. The anterior capsule is then lacerated, no iridectomy is performed, and the lens is delivered by pressure with the finger or a curette from below. He thinks that the pressure of the upper lid has a tendency to coapt the edges of the wound, whereas in the Graefian wound the pressure of the upper lid has a lever-like influence upon the corneal flap. He showed a case that had been operated upon a few weeks before, in which there was a good circular pupil, with a slight film of capsule remaining, which he broke through with a needle. In speaking of iritis after extraction, he remarked that he thought the rheumatic and suppurative diatheses were antagonistic. He attached so much importance to this fact that he would do a flap operation on one eye, and "a slit," as he familiarly called it, on the other. Also, that though one would think that a slit was not so favorable to extraction of the lens, in practice it was found to be so. I saw several other cases of good circular pupils after this operation in Mr. Critchett's wards.

I saw Mr. Liebreich do an operation entirely similar, save that he made his section in the lower segment of the cornea. He also showed me two patients who after the lapse of some weeks presented perfectly round pupils; in one the line of incision was only to be seen by oblique illumination. Really the operations are the same, except as to the location of the wound. Mr. Liebreich publishes an account of his operation in the *Medical Times and Gazette* for December 2, 1871.

Mr. Critchett is about to publish his experience with the new operation in the London *Medical Press and Circular*, edited by Dr. Prosser James.

Mr. Bowman's new operation consisted in drilling or trephining a hole in the sclerotic border of the cornea, in a case of serpiginous ulcer of the cornea threatening to girdle the cornea and destroy its nutrition. He had tried to check it by every means, including iridectomy, without avail. By means of a little instrument very like a minute trephine, he bored a circular opening at the sclerotic junction of the cornea *over* the site of the previous iridectomy (having no iris under his wound), and allowed the aqueous humor to flow off. His object was to relieve tension; and to do so continuously for a short time he allowed the wound to heal slowly by granulation, opening it from time to time.

A. D. HALL, M.D.,
Surgeon to Wills Ophthalmic Hospital, Philadelphia.

(To be continued.)

THAT NEW DEPARTURE IN MATHEMATICS.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES.

DEAR SIR,—I did not happen to see Dr. Ashhurst's reply to my notice of his criticism for some time after its publication; nor did I then regard a reply on my part as necessary. Several interested friends, however, desired the opinion of an expert; and accordingly the papers were all sent to E. B. ELLIOTT, ESQ., of Washington, well known as an authority in statistical and mathematical investigations. Mr.

Elliott was at the time absent in the West; on his return he sent the following statement:

"The question at issue, as you state in your note, is, 'If ankle-joint and leg amputations in two armies give percentages of mortality as follows (per 100 cases of each amputated): *first*, ankle-joint 13 per cent., leg 26 per cent.; *second*, ankle-joint 18 per cent., leg 36 per cent.,—is it *arithmetically* correct to state, 'From these statistics it appears that amputation at the ankle-joint is 50 per cent. less fatal than amputation of the leg'? My reply is in the affirmative. These statistics indicate that ankle-joint amputations are less fatal by 50 per cent. than leg amputations; that the proportionate mortality resulting from the former is less by 50 per cent. than that resulting from the latter; the mortality resulting from the latter being impliedly the unit or basis of the comparison.

"We may invert the order of statement, and say, correctly, that from these statistics it appears that leg amputations are 100 per cent. more fatal than ankle-joint amputations,—the difference in the two rates of mortality being clearly equal to 100 per cent. of the rate resulting from such ankle-joint amputations. The difference between the two rates of mortality under consideration is 18 per cent. of the number of cases operated upon; 50 per cent. of the proportionate number of deaths occurring when the amputations are through the leg, and 100 per cent. of the proportionate number of deaths occurring when the amputations are at the ankle-joint.

"I regard each of these forms of statement as correct.

"The subject might be further illustrated as follows: Assume that ankle-joint amputations were fatal in 21 per cent., and leg amputations in 28 per cent., of the cases operated upon; the difference in favor of the amputations at the ankle-joint would obviously be 7 per cent. of the number of cases operated upon,—a quantity equivalent to 33⅓ per cent. of the mortality which resulted from amputation at the ankle-joint, or 25 per cent. of that which would result from amputations through the leg.

"It would, then, in my opinion, be proper to state that these data indicate that amputation at the ankle-joint is less fatal by 25 per cent. than the alternative amputation through the leg; also, that amputation through the leg is 33⅓ per cent. more fatal than amputation at the ankle-joint; also, that the difference in favor of amputation at the ankle-joint, as compared with amputation through the leg, is equivalent to 7 per cent. of the entire number of cases operated upon.

"The subject does not seem to me a difficult one. Your reviewer demands, as I understand, that you make the entire number of amputations the basis upon which to compute your percentage. You are of opinion, I take it, that you have a right to make some other quantity the basis, as, for instance, that which represents the mortality which results from amputation through the leg. He would subject you to greater restriction in the selection of the basis on which your percentage may be computed, than you deem necessary or desirable. My opinion is in favor of the larger liberty in the selection of such basis.

"The question asked is, What per cent. is 18 per cent. of 36 per cent.? Your reply is correct,—viz., 50 per cent. The question which your reviewer would have you ask is, What is the difference between 18 per cent. and 36 per cent.? The answer obviously is 18 per cent. You do right in objecting to this form of putting the question, because it fails to institute the precise comparison you evidently design to make. You do not wish to institute a comparison between the saving of life and the number of cases operated upon, but between such saving and the mortality resulting from an amputation which furnished the larger death-rate."

I am happy to have furnished Dr. Otis an opportunity to read Cooper's case in full. I made no allusion to Richards' and Claggett's case as one of amputation for gunshot. He thinks "Surgical statisticians would hardly have acquitted" him if he had omitted "from a table designed to show the mortality of amputations at the hip-joint after gunshot wounds" a case in which the patient died before the amputation was performed. I am of the opinion that surgical statisticians will regard such tabulation as censurable. Cooper's case made a difference in the death-rate of six-tenths of one per cent. What would have been the difference if 161 cases similar to Cooper's had been added? Yours, etc.,

STEPHEN SMITH.

NEW YORK, February 12, 1872.

[This correspondence must end here, so far as the columns of the *Times* are concerned. We think it but right to add that a reference to Dr. Ashhurst's letter, in the number for December 15, 1871, shows that he has not denied, but has, on the contrary, expressly affirmed, that 18 per cent. is half of, or 50 per cent. of, 36 per cent.; and that it is less than 36 per cent. by 50 per cent., which is equivalent to saying, as Mr. Elliott does, that 18 per cent. is 50 per cent. less than 36 per cent., 36 *per cent. being assumed as the unit or basis of comparison.* It is, moreover, our opinion that Dr. Smith, having himself adopted as his basis of comparison the whole number of cases, or 100 per cent. (which he does by saying that 9 per cent. is 3 per cent. less than 12 per cent.), is inconsistent in changing his unit during the same statistical investigation, by saying that 18 per cent. is 50 per cent. less than 36 per cent.

It is, in our opinion, begging the question to say that Dr. Otis inserts in his table "a case in which the patient died before the amputation was performed," for this is the point at issue; the fact being that the patient died, not before the operation was *performed*, but before it was *completed*.—ED.]

SAN FRANCISCO, CAL., January 16, 1872.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES.

DEAR SIR,—An article on Styptic Cotton appears in your journal of January 1, 1872, by James Cummiskey, in which he recommends dipping the cotton in sol. persulph. ferri. I would respectfully state that at the outbreak of the rebellion, in 1861, I conceived this idea of making a styptic for the benefit of wounded soldiers, and consequently made large quantities, which kept very well for about six weeks; but I soon found a change taking place in its nature, the preparation losing entirely its styptic properties. Mine was made into rolls about two inches long by three-quarters of an inch thick, and wrapped in oiled silk to protect it from the air; but, notwithstanding this precaution, it would swell up and burst the wrapper and lose its virtues.

I would like to know from Dr. Cummiskey how he manages to prevent the same result with his preparation. Perhaps there is something in dipping the cotton in a solution of soda previous to saturating it with solution of subsulphate of iron, which I did not do. Yours, truly,

H. JOHNSON,
Captain, etc., U.S.A.

OBITUARY.

DR. JAMES S. CARPENTER.—This gentleman, whose recent death, after an active and honorable professional career, has been referred to in the public press, established a reputation as a worthy, industrious, and skilled practitioner during a period of nearly half a century. Born in New Jersey, he removed a few years after graduation to this State, and in 1829 made Pottsville his home, in which place he continued to reside until his death. He was one of the most honored alumni of the University of Pennsylvania, from whose halls he at once passed into active practice; afterwards visiting Europe for purposes of professional improvement, when Dupuytren, Velpeau, Liston, Cooper, and Brodie were the leading lights of French and English surgery. He was one of the founders of the Schuylkill County Medical Society, and also through a series of years its President; and was admired for his excellent personal and professional qualities, both by his medical associates and all those who enjoyed his acquaintance. The County Society which he represented in Conventions has been characterized at times by want of harmony among its own members, which has sometimes given it undue prominence in the State Medical Society meetings.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, JANUARY 25, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. JAMES TYSON presented, for Dr. WM. PEPPER, the *specimens* from a case of *double pneumonitis*, admitted to the Philadelphia Hospital January 1, 1872, and dying on the 23d of the same month. The patient was a male, aged 46.

On admission, there was consolidation of only the left lower lobe. Being delirious, he left his bed, and, exposing himself, was attacked with inflammation of the *right apex*, which subsequently extended throughout this and the corresponding middle lobe. He died on the fifth day after admission and the ninth of the disease.

Post-mortem examination revealed red hepatization of the inflamed portions and congestive emphysema of the non-consolidated lobes. There was also some thickening of the left pleura from previous pleurisy. The kidneys were congested, and their cortical portion somewhat coarse-grained.

Dr. TYSON also exhibited the following specimens:

1. A *heart* presenting almost complete *stenosis* with *insufficiency* of the aortic valves, which were also the seat of *efflorescent calcareous vegetations*. The patient, a male, was 65 years old, and much emaciated; there were numerous petechial spots on the abdomen and right thigh, and the scrotum and buttocks were covered with suggillations.

Post-mortem examination revealed the left lobe of the *thyroid gland* about the size of a hen's-egg, containing in its centre three small cysts, of which the walls were the seat of complete calcareous change.

Pleuræ.—There was no fluid in the pleura. There were slight adhesions upon the anterior surface of the right side.

The *lungs* were moderately distended with air. The margin of the anterior lobes was emphysematous. Upon the anterior upper surface of the left lobe a wedge-shaped embolic patch was found, surrounded by a thin layer of pus. The posterior and lower surfaces of both lungs were œdematous, and filled with frothy mucus.

Heart.—The pericardium contained about ʒi of straw-colored fluid. Its walls were smooth; the walls of the right ventricle were œdematous; the walls of the left ventricle were very much thickened; the mitral valves were normal. There was, however, almost complete stenosis here exhibited of the semilunar valves of the aorta, with calcareous vegetations.

The *liver* weighed 2 lbs. 5 oz.; was considerably diminished in size, indurated, tough, and resisting to the fingers.

The *kidneys* weighed 3½ oz. each; were decidedly diminished in size. The surface of each organ was covered with numerous pinhead-sized cysts, containing a clear straw-colored fluid. The hilus of the kidney was apparently much enlarged. The pyramids were congested; dark red in color. The Malpighian capsules were seen as bright-red spots.

The *spleen* was greatly diminished in all its dimensions.

2. An *enlarged sacculated cystic kidney*, in the pelvis of which lay a large calculus about an inch in diameter, and of undetermined chemical composition. The results were those ordinarily due to suppurative pyelitis.

3. A *kidney* which was the seat of numerous *thin, transparent-walled cysts*, characterized by the presence of clear, colorless contents which are known commonly to contain no urinary constituents,—simply albumen, and sometimes leucin and tyrosin.

Dr. C. B. NANCREDE presented a specimen of *total staphyloma corneæ*, and read the following history:

Georgiana M., æt. 7, had an attack of variola last March, for which she was treated in the Municipal Hospital. Shortly after her return her mother noticed a "white speck on the sight," which continued to enlarge until it reached its present development, although at times apparently remaining in a quiescent state. When first seen, a few days before the operation, the eye presented the appearance of a total staphyloma of the cornea, the projection being of a dense white color, except in one or two spots where the true corneal tissue in part remained. The ball itself was considerably atrophied, and was at times the seat of a good deal of pain,—not persistent, however, being generally present only when rapid growth was apparent; and for some weeks previous to this application for treatment, the growth had taken on fresh and rapid enlargement.

On testing vision, no perception of light was found to be present. The lids were stretched to permit of their covering the protrusion, which projected considerably beyond the normal position of the cornea. The only treatment that could be recommended was the removal of the offending organ, on account of the great risk of sympathetic inflammation attacking the other eye as long as it remained, especially as the little patient evinced some, although not much, photophobia in the sound eye.

Extirpation of the ball was preferred to mere abscission. The operation chosen was that introduced by Bonnet and O'Ferral in 1841, independently of each other, and which has great advantages over the old mode. It does not interfere with the cellular tissue of the orbit, it leaves most of the conjunctiva intact, and, by dividing the muscles close to their scleral attachments, gives a movable stump, besides causing but little hemorrhage, from the fewness of the vessels divided.

This specimen is of interest for two reasons: first, as being one of the sequelæ of the present epidemic; and secondly, as showing so clearly the mode of formation of staphyloma corneæ. As the pock is never found upon the cornea itself, the perforating ulcers which caused the protrusion must have been the result either of the debility consequent upon the previous illness, or of the plastic chemosis of the conjunctiva pressing upon and strangulating the vessels supplying blood to the cornea, thus producing necrosis of this tissue. If the latter be the true explanation, however, the resulting ulcer ought more to resemble that occurring under like circumstances in gonorrhœal ophthalmia, etc., which is crescentic and peripheral, not as it appears to have been in this case, where there evidently have been several, and at various portions of the cornea.

Pathologically, it is of interest to examine the mode of production of this affection, taking the present specimen as the text. An ulcer formed at one point, and continued to advance until a perforation was the result, through which opening the iris prolapsed as a matter of course. Soon the protruded portion became coated over with lymph; and from increased intraocular tension, produced by the irritation of the prolapsed iris, the cornea bulged outwards at this point. Now, either this process was repeated in a number of places, or the one protrusion so weakened the tissues that the staphyloma increased, gradually involving in its growth all the remaining

clear space, until finally it became this white, fibrous, globular projection, so little resembling the original cornea.

From the irritation of the protruded iris we had probably an irido-choroiditis, or irido-cyclitis, set up, which ended in atrophy of the ball. One of the principal reasons for considering that in this individual case the staphyloma was caused by one or more *small* perforating ulcers, is the presence of the lens, which, although not of full size, is *in situ*. If this growth had been produced by one large ulcer, when the perforation finally occurred the chances are strongly in favor of the lens also escaping at the same time.

Dr. J. E. MEARS presented *both ovaries, which had undergone cystic degeneration*, removed by Dr. Washington L. Atlee from a patient of Dr. W. L. Atlee, Jr.'s, January 17, 1872.

The patient, a resident of this city, had suffered from an abdominal enlargement about two years. She was married, and had never borne children. Menstruation ceased at the time the abdominal enlargement commenced.

She had been treated for a long time for ascites, and had taken large quantities of medicine: tapping had never been performed. At the time of the operation, fifteen pints of dark-brownish fluid, sparkling with cholesterine crystals, were drawn off from the cyst of the left ovary, which occupied the central portion of the abdominal cavity. The right ovary, enlarged to the size of a small lemon, was attached by a pedicle, four inches in length, to the wall of the cyst of the left ovary.

The cyst of the left ovary was multilocular in character, and exhibited in an interesting manner the mode of development of the secondary endogenous cysts. The walls of the parent cyst were extremely vascular; the arterial and venous trunks, with their numerous diverging branches, could be distinctly seen; delicate vessels could be traced in the thin walls of the secondary formations. These walls are ruptured in the process of the development of the tumor, and the blood usually found in the fluid contents of multilocular cysts is without doubt contributed by these small vessels.

A portion of the right ovary was occupied by a small *dermoid cyst*, containing a mass of coarsely-granular fat, in which were imbedded a large number of short hairs of the same color as the hair of the head of the patient. Some few hairs were attached to the lining membrane, which in every respect exhibited its tegumental character.

The remaining portion of the ovary was filled with numerous small cysts, varying in size.

REVIEWS AND BOOK NOTICES.

A CLINICAL MANUAL OF THE DISEASES OF THE EAR. By LAURENCE TURNBULL, M.D., Physician to the Department of Diseases of the Eye and Ear of Howard Hospital of Philadelphia, etc. 100 Illustrations. 8vo, pp. 486. Philadelphia, J. B. Lippincott & Co., 1872.

In the preface the author disclaims having "simply recorded the views and opinions of others, but that he has added the results of his personal experience in seventeen years' private practice, and in the treatment of several thousand cases in the aural department of Howard Hospital." Nevertheless, the conflicting views and opinions of others—earlier and modern otologists—do constitute the major part of this volume; and the favor with which this new addition to the already extensive otological literature will be received must undoubtedly be dependent in a great measure upon the acceptability of its numerous selections and translations; but as many of these are new and from sources inaccessible to the general reader,—numerous extracts being taken from untranslated German publications,—they will no doubt prove interesting and instructive to many American readers.

The student, confronted by an array of eminent aural authorities, is, unfortunately, too often left by the author to decide for himself concerning diametrically opposite theories and modes of treatment. Certainly the author's long years of practical experience have afforded him ample opportunities of fairly testing all of them; and his neglect to pronounce upon their relative merits and demerits can only be excused upon the grounds that "by contradiction is nourished the spirit of investigation."

The first fifty pages are devoted to anatomical descriptions of the ear and to the subject of acoustics. So far as the general practitioner is concerned, this part might as well have been omitted, for he lacks both time and inclination to read mere dry anatomy; nor can such epitomized descriptions satisfy the specialist, so long as there can be obtained so many excellent and elaborate treatises, both histological and anatomical, of the organs of the special senses. The embodiment of such elementary anatomy into a clinical text-book has always appeared to us a procedure of questionable propriety. Concerning this point, however, opinions differ widely, and we shall not attempt to argue it further.

Dr. Turnbull's anatomy is guilty of many sins of omission, and is not entirely free from errors; but, as our space is limited, we have to content ourselves with these generalities, and shall only point out a few instances.

No mention is made of the meniscus, which performs such important functions in the malleo-incudal and stapedo-incudal articulations. The old misnomer of tensor palati is used, instead of dilator tubæ. The ligamentum mallei externum is spoken of as a laxator muscle. Nor is any allusion made to those remarkable pyriform ganglionic structures in the mucous membrane of the middle ear described by Kessel and Politzer.

In the first ten chapters are discussed the best mode of conducting an aural examination and of making a differential diagnosis, the methods of removing foreign bodies and polypi from the external meatus, different diseases and injuries of the auricle, and otitis externa. For the latter disease, when caused by the presence of aspergillus, the author prefers the hyposulphite of soda or the bisulphide, as being the best antiparasitics.

Otitis media purulentia, the subject discussed in the eleventh chapter, is divided up into the impracticable classification of acute, subacute, chronic, and hypertrophic. The author's treatment for this affection is truly heroic. On page 176, having pointed out the importance of constitutional treatment by means of tonics, alteratives, etc., he recommends "also means of counter-irritation by blisters, croton oil, tincture of iodine, and, in some rare cases, the actual cautery; these are all necessary measures of success in removing the discharge."

"Quod ferrum non sanat, ignis sanat,"—an appropriate aphorism in pre-pathological ages; hardly in this nineteenth century.

Especially worthy of perusal will be found the last twelve pages of this same chapter, taken *in extenso* from one of Gruber's best articles upon the treatment of purulent and hypertrophic inflammation of the middle ear.

The succeeding chapter treats of otitis media involving the mastoid process and cells, and even the brain itself. This constitutes the otitis interna of the author,—rather an unfortunate term, as suggesting an affection limited to the internal or labyrinthian portion of the auditory apparatus; while the latter are classed under the head of "nervous deafness."

The thirteenth chapter is devoted to the consideration of simple catarrhal inflammation of the middle ear. Another equally lengthy abstract is taken from Gruber's text-book; in it will be found admirable directions for the use of the air-douche and catheter, and the employment of vapors or fluids injected into the cavity of the tympanum.

The importance of the rhinoscope in the diagnosis and treatment of the Eustachian tube and middle ear is ably discussed and fully illustrated.

Two chapters are devoted to the diseases and treatment of labyrinth, or nervous deafness. The author claims to have effected cures by the use of the constant galvanic current, also of faradization. The method as well as the formulæ of Brenner is discussed, but, judging from the very small number of cases treated according to it, the author is hardly in a position to give an impartial judgment concerning it.

Many of Toynbee's pathological records are freely interspersed throughout this book; but such rapid strides have been made in pathological science and modes of investigation

since Toynbee's time, that their republication is much to be regretted.

A very extended bibliography is added as an appendix. As no systematic arrangement, either of the subjects or of the authors, is adopted, it is next to impossible to find anything in so many pages.

BOOKS AND PAMPHLETS RECEIVED.

Proceedings of the American Association for the Cure of Inebriates. Second Meeting. Held in New York.

Report of the Committee on Criminal Abortion. Extracted from the Transactions of the American Medical Association.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, etc. Third Edition. Enlarged and thoroughly Revised, with 246 Illustrations on Wood. 8vo, pp. 784. Philadelphia, Henry C. Lea, 1872.

A Plea for Scientific Reform. A Letter to Rev. Theodore L. Cuyler, D.D., on the Attitude of Physicians and Scientists towards the Temperance Cause. By George M. Beard, M.D.

GLEANINGS FROM OUR EXCHANGES.

VELOCITY OF VISION.—The last number of Pflüger's *Archiv für Physiologie* contains a paper of M. Baxt, of St. Petersburg, "On the time requisite for a visual impression to arrive at the consciousness, and upon the duration of the period of consciousness, caused by a visual impression of definite duration." From the experiments of Helmholtz and Exner, it has been shown that, if a number of ordinary letter-press letters be exhibited to the eye on a white ground, sometimes one, sometimes two or more of them are distinguished from the row, according to the duration of the impression, and that of the positive after-image. M. Baxt proceeded on the same principle, and his apparatus was similar to those employed by Helmholtz, consisting of two disks, which could be caused to revolve at known speed, but the posterior of which rotated twelve times more rapidly than the anterior. From the numerous experiments given, it appears: 1. That the consciousness of a given excitation is only realized or perfected by degrees; and 2. That, under the particular circumstances of his experiments, a period of one-twentieth of a second must elapse between the occurrence of a relatively simple excitation of six or seven letters suddenly placed before and withdrawn from the eyes, and its reception or formation in the consciousness. In other experiments he found that the time required for the comprehension of a complex figure was much greater than that for a simple figure, the proportion between an ellipse and a pentagon, for instance, being as 1 to 5. Researches on the time requisite for the production of consciousness with various strengths of illumination gave the result that this time was proportionate, within rather wide limits, to the degree of illumination; but if illumination was excessively strong or weak it increased.

NEURASTHENIA.—Under this name Dr. T. W. Fisher (*The Boston Medical and Surgical Journal*, February 1, 1872) describes a class of cases which, though frequent, are difficult to include under any definite name. They all, however, exhibit a variety of symptoms due to functional nervous disorders. After giving the details of several cases, Dr. Fisher says, "The one fact in connection with cases presenting features of depression, hysteria, or hypochondria which should be most insisted on, is that mental symptoms are as significant of nervous exhaustion as physical. The feelings and ideas depend as directly on the state of the nervous centres as any other of the nervous functions. Depression, irritability, suspicion, wilfulness, and all forms of morbid and disordered emotions running into fixed or extravagant ideas, are symptoms of the same kind as numbness, pain, paralysis, and spasm. They result from disordered function in different parts of the same nervous apparatus, and may depend on the same condition of nervous exhaustion. In dealing with nervous cases, it is important to remember that every symptom, mental or nervous, means *something*, and unless we patiently analyze both we fall short of the requirements of the case.

ACUTE GLANDERS IN A MAN; CURE.—Dr. Tüske reports in the *Wiener Medizinische Presse*, December 31, 1871, a case of glanders occurring in a man. After alkaline bath and the internal administration of quinia had been found without effect, six grains of carbolic acid in solution were ordered to be taken daily. Under this treatment the patient recovered, and was discharged from the hospital on the thirty-fifth day.

MOLLUSCUM CONTAGIOSUM DEPENDENT UPON A PARASITE.—Mr. Balmanno Squire thinks that he has discovered parasitic spores in the sebaceous matter which forms the pulp of the tumors in molluscum contagiosum. Before the sebaceous mass was examined microscopically it was digested in ether,—a process by which it was very considerably shrivelled. The spores, he thinks, are somewhat longer than those of the parasite of favus. Mr. Squire believes that the parasite causes, by the irritation it excites in the sebaceous glands, the increased secretion of sebaceous matter which characterizes this disease.

A GREEN PEA REMOVED FROM THE LACHRYMAL CANAL.—Mr. Hulke exhibited at a recent meeting of the Pathological Society of London (*Lancet*, January 20, 1872) a green pea (?) which had been removed from the lachrymal canal of a young lady who had been under treatment for a small abscess in the situation of the right lachrymal canal, which, when opened, exuded a greenish globular mass like a green pea; and the patient stated that some months previously she had passed a pea into her nose for the amusement of a child, and that the said pea had disappeared. How the pea had managed to travel up the nasal duct into the lachrymal canal was not explained. The body was referred to Dr. Bristowe for careful examination.

MULTIPLE LYMPHOMA SUCCESSFULLY TREATED BY ARSENIC.—Billroth reports in the *Wiener Medizinische Wochenschrift*, 1871, No. 14, the case of a woman 40 years of age, whose health ten months previously to her coming under his care had always been good. When she was admitted into his ward, the glands of the neck on both sides formed tumors the size of the fist; those of the axilla and groins were as large as apples, and those of the elbow were as large as an egg. The glands of the mesentery appeared enlarged. The examination of the blood showed that there was leucocythæmia present. Quinia given in large doses was entirely unsuccessful in relieving this condition. Billroth then gave Fowler's solution in doses of two and a half drops, gradually increased to ten drops, three times daily. Fourteen days after the commencement of this treatment a diminution in the size of all the tumors was noticed; and when, two months later, the patient was discharged, a gland the size of a hazel-nut only could be felt in the neck, and the glands in other parts of the body were reduced to a minimum.

EXSECTION OF CANCER OF THE ŒSOPHAGUS.—M. Billroth proposes (*L'Union Médicale*, December 30, 1871; from the *Archives für klinische Chirurgie*) the exsection of cancer of the œsophagus in cases in which the structure is accessible by an operation. He has never done the operation, but, in consequence of some experiments upon a dog, thinks that it is quite practicable. He excised about an inch and a quarter of the œsophagus of that animal, attached the lower portion by two sutures to the edges of the wound, and nourished the animal with milk by means of an œsophagian tube. The sutures were removed a week after the operation; the discharge from the wound was considerable, but it diminished rapidly with the cicatrization of the external wound. This was complete at the end of ten weeks. The cicatrix was gradually dilated by the introduction of bougies, and the dog soon began to eat meat and potatoes, which he swallowed without difficulty. Three months later he was killed. The œsophagus presented a simple annular cicatrix about half an inch wide, which did not interfere at all with the permeability of the œsophagus.

RAPID CURE OF CORYZA.—M. Barrier strongly advocates (*Medical Times and Gazette*, January 6, 1872; from the *Lyon Médical*, December 24) a modification of the treatment recommended by Mr. Pretty, of London, in 1845,—viz., the employment of the nitrate of silver, substituting the powder for the solution. He recommends: 1. To sneeze during the whole course of the disease as seldom as possible, keeping the mouth wide open in order to expel the column of air, which would irritate the walls of the nares; 2. To blow the nose seldom and incompletely; 3. To sniff up strongly a very small quantity of the powder (nitrate, one part; sugar, reduced to an impalpable powder, nine parts) three or four times a day.

SPONTANEOUS RUPTURE OF THE SPLEEN.—Surgeon F. Odevaine, Bhopal Battalion, reports in *The Indian Medical Gazette* for December 1, 1871, a case of rupture of the spleen occurring spontaneously. The subject was a woman aged 22 years, who just previous to her death had been engaged in grinding corn, and who, it was ascertained positively, had not received a blow in the left hypochondriac region. Feeling faint, she sat down and drank a little water, after which she was able to proceed a little farther, when she was overcome with giddiness and almost immediately died. A post-mortem examination was made. Several pints of serum and clotted blood were found extravasated within the peritoneum. The spleen was about four times its normal size, not remarkably friable, and presented a superficial rent on the middle of its inner aspect about 2½ inches long, and running parallel to its length. The deceased had been subject to epilepsy and ague. The rupture in this case, it will be observed, was on the concave surface or hilus of the spleen, the site of entrance and exit of its numerous very large vessels, and, though not very deep, probably in consequence of occupying its most vascular part, fully accounted for the rapid death of this woman, which took place in twenty minutes from the time of her first complaining of giddiness. In cases of ruptured spleen caused by violence, the injury is generally found at the external or anterior edge of the organ.

GOITRE AND ITS TREATMENT.—Dr. Carl Schwalbe, of Zurich, recommends (*Virchow's Archiv*, December 15) injections of alcohol or of the tincture of iodine in the treatment of goitre. He has met with but one case in over one thousand cases in which death could be ascribed to the use of these injections. The older the goitre, the larger and the more considerable the tissue-changes, the more unfavorable is the prognosis and the more energetic and heroic must the treatment be. The struma follicularis mollis may often be dissipated by the internal use of iodide of potassium, especially if the patient is able to change his residence. The cure, however, will take place sooner if the tumor is injected with alcohol or the tincture of iodine. Certain forms of cystic struma may also be successfully treated by these injections, but in the indurated form, in which the canula enters with great difficulty and no liquid can be made to penetrate the tissues, no marked result is produced. In these cases electrolysis will be found more useful, and as a last resource we have the operation for the removal of the tumor.

In the vascular form of struma the injection of alcohol or of tincture of iodine is not unattended with danger; and we must have recourse to electrolysis.

CONSTITUTIONAL SYMPTOMS FOLLOWING THE BITE OF A RAT.—Dr. Charles W. Earle reports a case of this kind in the January number of the *Medical Examiner*.

CÆSAREAN SECTION AFTER THE DEATH OF THE MOTHER, WITH THE PRESERVATION OF THE CHILD.—The operation was performed by M. Molinière (*L'Abeille Médicale*, October 14) upon the body of a woman a few minutes after her death from convulsion. When delivered, the child did not present any sign of life. Recourse to insufflation, mouth to mouth, and to artificial respiration, was attended at first with but little success. At last the child breathed, and soon afterwards began to cry.

DEATH FROM BICHLORIDE OF METHYLENE.—A married woman (*Medical Times and Gazette*) 44 years of age, who was about to undergo an operation for cancer of the breast, expired suddenly while under the influence of bichloride of methylene.

MISCELLANY.

THE PHYSICIANS OF PHILADELPHIA AND THEIR BRETHREN OF CHICAGO.—We are requested to insert the following letters:

"H. LENOX HODGE, M.D.,

"No. 903 Walnut St., Philadelphia, Pa.:

"DEAR SIR,—Your letter of 6th inst., to Dr. N. S. Davis, was laid before our committee at its last meeting (Jan. 9).

"You are kind enough to say that the physicians of Philadelphia have contributed the sum of $1000 toward the alleviation of the necessities of their Chicago brethren.

"I am instructed by the committee to express, as far as can be done in language, the deep and heartfelt gratitude of the profession here for this additional expression of generosity and sympathy from Philadelphia physicians, and also to suggest that, in view of the difficulty of ascertaining the exact necessities of every individual on our list of more than one hundred sufferers, we deem it best to accept on their behalf your offer of money, which each can use as his own judgment may dictate.

"Please send contributions of all sorts to my address, and oblige

"Yours, very respectfully,

"WALTER HAY, M.D.

"No. 384 MICHIGAN AVENUE, CHICAGO, January 10, 1872."

"H. LENOX HODGE, M.D.,

"No. 903 Walnut St., Philadelphia, Pa.:

"DEAR SIR,—Yours of the 13th inst. was received on the 15th; I have been prevented by illness from acknowledging it sooner. Dr. Ludlow's letter, with check for $1115 enclosed, was also received.

"In the name of our committee in behalf of our suffering physicians, accept from me the assurance of our most profound gratitude for this substantial manifestation of charity and professional regard.

"Thanks to the benevolence of yourselves and professional friends in other cities, our physicians are now placed in a position to help themselves.

"Accept my thanks for your kind attention regarding the catalogues, and believe me,

"Very respectfully,

"WALTER HAY, M.D.

"No. 384 MICHIGAN AVENUE, CHICAGO, January 19, 1872."

SIR WILLIAM JENNER AND DR. GULL.—It is said that the former of these gentlemen will be made a Knight of the Order of the Bath, and the latter a Baronet, for the eminent medical services they have recently rendered to the Prince of Wales.

In reference to the elevation of medical men to the peerage, Charles Lever has recently written, "I own that I am anxious to see some share of the high honors of the state bestowed upon a class which, whether simply regarded as numbering among them some of the ablest thinkers and writers of the age, or conferring more gratuitous services on the world than every other rank and condition together, are less recognized than any other. * * * * * *

"Among all the trained and polished intellects you assemble in the Upper House, you have not got that special form of mind that distinguishes the doctor. You have not got a man whose daily life and labor is passed between the deepest problems of science and the practical working of the great truths he has been considering. In knowledge of his fellowmen he is without a rival. His study of temperament is a study of character; and this not in one class or condition, but

in every walk and rank, from the palace to the hovel. He is the one man with whom no fallacy can succeed that assumes to say what men in this or that station might do or think; for he knows them all."

THE MEDICAL STAFF OF THE PRESBYTERIAN HOSPITAL.—At an election held on Monday, February 19, the following-named gentlemen were chosen officers of the Presbyterian Hospital:

Consulting Surgeons, Prof. D. Hayes Agnew, M.D., Prof. S. D. Gross, M.D.

Consulting Physicians, Dr. J. M. Da Costa, Dr. J. L. Ludlow.

Surgeons, Dr. Oscar H. Allis, Dr. Thomas B. Reed, Dr. H. Lenox Hodge, Dr. Wm. G. Porter.

Physicians, Dr. E. Wallace, Dr. D. F. Woods, Dr. J. F. Meigs, Dr. S. W. Mitchell.

Obstetricians, Dr. Robert M. Girvin, Dr. John S. Parry.

Ophthalmic Surgeons, Dr. W. W. McClure, Dr. George Strawbridge.

Pathologist, Dr. De Forrest Willard.

AT the dispensary of the Wills Ophthalmic Hospital in this city, 2590 new patients were treated last year for diseases of the eye. At the Eye and Ear Department of the Philadelphia Dispensary the number of new eye-cases prescribed for was 884, and the whole number of eye-cases was 11,066.

THE CANINES AT THE HUB.—We take the following from the New York *Tribune:*

"The dogs of Boston, like their brethren in Philadelphia, are in luck, for the Prevention of Cruelty Society has resolved to erect a Boston 'Home for Dogs.' To this all vagabond, homeless, hearthless curs will be conducted. After they have been comfortably fed and cleaned and warmed, we suppose that they are to be tenderly chloroformed out of existence; for really we do not see what else the Society can do with its protégés. The funds of the corporation will soon be exhausted if all these dogs are to be licensed at its expense. We presume that to killing the Society has no insuperable objection, because it is announced that at the 'Home' worthless animals, including horses, will be killed to order after the mildest methods. As for dogs, there are too many of them in the country now; and it is rather a difficult question to decide whether a dog with an incurable passion for killing sheep is entitled to the benefit of clergy."

THE WILLS OPHTHALMIC HOSPITAL.—The Board of City Trusts at its last meeting determined to make certain changes in the management of this institution. The office of Assistant-Surgeon will be discontinued after June 1, and the present Attending-Surgeons are to hold office only until next May, when, instead of four Attending-Surgeons as at present, it is proposed to elect eight, who are hereafter to be elected annually in December. The dispensary is to be kept open morning and afternoon, so as to afford increased facilities to applicants for relief.

It is probable that all the present Attending-Surgeons will be re-elected, and that, for the remaining positions, gentlemen who have made diseases of the eye a specialty will be chosen. This change has been thought necessary in consequence of the large number of patients who are treated at the dispensary of the hospital. The medical staff will be larger than that of the London Hospital, and seems disproportionately large to the size of the hospital, which contains only forty beds.

THE *Swiss Times* says that the ladies at present attending the Zurich University are so numerous as to constitute about one-tenth of all the matriculated students.

LIBRARY OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—Five hundred and seventy-seven volumes were added to this library during the past year. The whole number of volumes in the library is now over 15,500.

THE VALUE OF AN OPERATION.—A hospital surgeon received, a few days since, a letter, of which the following is an exact copy:

"DR. H.: SIR,—Do you pay for persons to be opperated on in the Hospital I know of too persons who is affected with Varicocele I think I could send them to you at least one of them.

"please awncer in Return Mail. address," etc.

MORTALITY FROM SMALLPOX.—The deaths from smallpox in Philadelphia for the weeks ending February 10 and 17 were respectively 183 and 136. Of this number 179 were minors.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending Feb. 10.	Feb. 17.
Consumption	48	52
Other Diseases of Respiratory Organs	46	68
Diseases of Organs of Circulation	23	28
Diseases of Brain and Nervous System	57	61
Diseases of the Digestive Organs	23	23
Diseases of the Genito-Urinary Organs	8	12
Zymotic Diseases	210	157
Cancer	11	6
Casualties	6	5
Debility	29	22
Intemperance	3	2
Old Age	10	17
Poisoning	0	1
Scrofula	0	1
Suicide	0	2
Stillborn	21	9
Syphilis	0	2
Tumors	0	1
Unclassifiable	11	16
Unknown	4	1
Totals	510	486
Adults	251	248
Minors	259	238

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM FEBRUARY 5, 1872, TO FEBRUARY 18, 1872, INCLUSIVE.

MILLS, MADISON, SURGEON.—By S. O. 30, War Department, A. G. O., February 5, 1872, granted leave of absence for sixty days.

FRANTZ, JOHN H., SURGEON.—By S. O. 38, War Department, A. G. O., February 14, 1872, to report in person to the Commanding General, Department of the South, for assignment to duty.

MACKIN, CHARLES, JR., ASSISTANT-SURGEON.—By S. O. 33, War Department, A. G. O., February 8, 1872, to report to the Commanding General, Department of the South, for assignment to duty.

HOFF, ALEXANDER H., ASSISTANT-SURGEON.—By S. O. 31, War Department, A G. O., February 6, 1872, assigned to duty at Fort Columbus, New York Harbor.

KIMBALL, J. P., ASSISTANT-SURGEON.—By S. O. 33, War Department, A. G. O., February 8, 1872, assigned to temporary duty at Fort Columbus, N. Y. Harbor, to accompany the first detachment of recruits to New Orleans, La., and, on arrival, report to the Commanding Officer, Department of the Gulf, for assignment to duty.

LORING, L. Y., ASSISTANT-SURGEON.—By S. O. 18, Department of the Missouri, February 2, 1872, to proceed to Fort Leavenworth, Kansas, and report to the Commanding Officer for assignment to duty.